ORGANIZED BANKING

BY

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PREFACE

This book grew out of a part of a course on the subject of money and banking given by the author at Columbia University. It was written under stress of numerous other duties, hence the author himself feels called upon to confess that in several directions the book leaves something to be desired. But it is hoped that it will be helpful to the student and to the general reader in obtaining a little more comprehensive and more closely coördinated knowledge of the broader relations of modern banking. For use in the classroom it is recommended that a good book of readings like W. Hamilton's *Readings in Money and Banking,* or H. G. Moulton's *Principles of Money and Banking* be used, to supply illustrative, concrete material as a basis for further discussion.

The author has obviously drawn heavily on the productions of others. Professor Dunbar's little book, *Chapters on the History and Theory of Banking,* supplied most of the basic structure. Suggestions were picked up here and there in the writings of sundry other authors. Definite acknowledgment is made in a few cases, but most of the principles of modern banking have been so widely discussed that they may be regarded as common property. There is little, therefore, that is really new in this book except in organization and method of approach.

The author takes pleasure, however, in expressing grateful acknowledgment to his chief, Professor E. R. A. Seligman, to Professor E. W. Kemmerer of Princeton, and to Professor B. M. Anderson, Jr., of Harvard for helpful suggestions in drawing up the general plan of the book. He is greatly indebted also to his friend and colleague, Dr. H. Parker Willis, for reading over the proof of the

chapters dealing with the Federal Reserve System and for helpful suggestions in connection therewith. The author himself, however, is entirely responsible for any errors of fact or of interpretation that may appear. Lastly, grateful reference must also be made to the fact that the Index was prepared by the author's friend, Mr. C. F. Kurtz of the State University of Iowa.

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COLUMBIA UNIVERSITY,
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ORGANIZED BANKING

INTRODUCTION

Modern production characterized by division of labor

Specialization, we are told, is the order of the day. Whereas, in earlier times the individual artisan or craftsman carried through from beginning to end the manufacture of any given kind of useful thing, today, in most lines, the process is divided into a large number of constituent parts, each of which becomes the task or trade of whole groups of individuals. A suit of clothes may still be made from beginning to end by a "custom tailor," but, in a modern clothing factory, the manufacture of a coat alone is divided among forty or fifty different groups of workmen, and each of such groups is known by a special designation. Indeed, it is now difficult to find any line of production in which such "division of labor" has not entered as one of the characteristic features.

Division of labor and specialization intensify mutual dependence

The significant fact about this specialization is that it involves an increasing dependence of each member of the social group upon the group as a whole. When the individual can perform for himself all the tasks the performance of which is essential to his happiness and well-being, he may rightfully, perhaps, consider himself independent of his fellows. But few today can boast of such independence, and, considering the meager possibilities that even under the best conditions such an isolated existence can afford, there are few who would welcome it. Today we supply goods to, or render services for, others, and for the satisfaction of our own wants we expect to obtain from others, through exchange, the goods or services which we consider essential or desirable. Such production is said to be for the "market,"—a system, namely, where practically everyone is a seller of his own goods and services, and, at the same time, a buyer within the limits of his

income as well as of his needs or desires of the goods and services of others.

This dependence is now almost world-wide

The scope of the mutuality of interest and dependence arising from the division of labor is itself broadening out because of the extension of the market. Before the development of modern means of transportation markets were narrowly restricted, and only those people living along the sea shore or on the banks of navigable streams could expect to obtain goods coming from any considerable distance. Hence in the early days most communities were perforce self-sufficing, and in such communities variety in consumption was largely restricted by the narrow possibilities of local production. But today in most communities, certainly in the large centers, the products of the whole world are offered in a variety to suit the taste of the most discriminating and fastidious purchasers. Indeed, for most imperishable goods the market nowadays is as wide as the world itself.

It is made possible by large scale production

Production for a widely extended market, however, is possible only with production on a large scale. Small-scale production obviously offers but slender possibilities in the field of marketing. Under large-scale production whole communities may give themselves over to the production of a relatively small number of articles, marketing them throughout the entire world, and getting from other communities the products that are desired but which are not locally produced. Thus the collar and shirt makers in Troy, N. Y.; the shoe manufacturers in Brockton, Mass., and the furniture workers in Grand Rapids, Mich., have to produce large quantities of their several specialties in order to sustain, through extensive exchange, the high degree of specialization which characterizes their several towns.

As a necessary accompaniment of large-scale production is the lengthening of the period of production. Under the older and simpler methods of production the artisan would take a given quantity of raw material and would work this

up, in a comparatively short period of time, into finished product. But when a given process is divided into a whole series of processes, each of which is in the hands of a separate body of workmen, the raw material must pass from one body to another until in the fullness of time it emerges from the hands of the last as a finished and usable good. Under such division of labor the time involved in the transformation of a given amount of raw material into finished product is longer than that required under the simpler method.

Large scale production involves the lengthening of the period of production

Of special significance, however, is the lengthening of the period of production when social production as a whole rather than when particular processes are considered. The ultimate aim of all productive effort is the increase of what we call "consumers' goods," namely, goods that will satisfy human wants. These goods may be directly produced without the preliminary production of tools, machinery, *etc.*, with the aid of which more of such consumers' goods may be produced in the long run; or they may be indirectly produced by first devoting time and energy to the production of tools and machinery and then by utilizing these implements as aids in the enlarged production of the immediately enjoyable consumption goods. In the indirect production enjoyable consumption is, of course, deferred, but in the end there is made available a larger supply of enjoyable goods. All large-scale production is today of this "roundabout" character. Large numbers of individuals give their whole working time to the production of what we term "capital goods" in contradistinction with "consumers' goods." These capital goods will, of course, ultimately contribute to human enjoyment through the aid that they render in producing consumers' goods, but the greater the division of labor and the more such capital goods become necessary as aids in producing consumers' goods, the longer is the period of time that intervenes between the first steps of production and the final "ripening," as we say, of consumers' goods. The great

This is of special significance to social production as a whole

justification for the lengthened time involved is, of course, the resultant quantitative increase in enjoyment.

Lengthening the period of production grows out of the existence of capital

The possibility of the indirect or "roundabout" process of production depends upon the existence of what we call "capital." Capital for our purposes may be considered wealth that has been made available for further production, or perhaps even more generally, wealth which from the viewpoint of the ultimate source of its value, has not reached the hands of the final consumer. The buildings, machines and tools, the raw material in the various stages of completion, the finished goods in the warehouse of the manufacturer or on the shelves of the wholesaler or the retailer—all represent stored-up wealth belonging to somebody but temporarily surrendered for further production or better adaptation to final want satisfaction. Without such stores of wealth large-scale production would be impossible. Capital implements in the form of stones fashioned into hammers, or of sticks into instruments for cultivating the soil have, of course, been employed by mankind since the first rude beginnings of industry. But today with minute division of labor, with widespread use of machinery, with production on such a large scale and so "roundabout," so much stored-up wealth is necessary that capital has become increasingly important as one of the "factors of production." Success for the individual business man along most lines today depends largely upon ability to control adequate supplies of this factor, and those who are in control of large quantities of their own or someone's else capital are as "capitalists" most powerful personages. Indeed, so widespread is the recognition of this importance of capital that the whole economic scheme as now organized is referred to as the "capitalistic" system.

The first condition necessary to the creation of capital is "abstinence." Wealth can be stored for use in further production only in so far as those who have a rightful claim to it elect not to consume such wealth immediately but, for some adequate consideration, to devote it to furthe

production. Not all wealth, however, can be used in further production. If goods of final consumption be created and be not consumed they remain useless and tend to deteriorate. Hence, the creation of capital as a rule involves more than mere abstinence from consumption. It involves as well the creation of "capital goods," of those goods, namely, which, like tools, *etc.*, are serviceable in further wealth production.

"Abstinence" is essential as the first step in the creation of capital but it does not alone suffice

This is true for the isolated individual and for a highly complex economic organization of human society. If an isolated Crusoe is to supply himself with a capital equipment he must devote to the production of the tools, implements, *etc.*, which are to constitute such equipment, a part of the time that would otherwise be devoted to the production of immediately enjoyable goods or that might, perhaps, simply be devoted to pleasurable recreation. Exactly the same is true of organized society. Society as a whole, like the isolated individual, can get its capital equipment only by abstaining for a season from pleasurable recreation, or from the production of goods destined for immediate consumption, and by devoting the time and energy so saved to the production of the desired capital implements. The nature of the process in society is somewhat obscured by the fact that the "abstainer" and the producer of capital goods are rarely the same persons; but through the use of "money" or a generally acceptable medium of exchange, virtually the same result is attained.

The actual process in modern society is obscured by the use of money

It is almost trite to say that our present-day economic life is based on the use of money. What the individual is after in all his economic endeavor today is the control of "money," or what is recognized as its equivalent. To make money is the goal of the business man and the dream of the youth. He who is wealthy is said to possess quantities of "money," while, according to the moralist, the love of "money" is the root of all evil. But it is obvious that money itself is useful only when it is parted with, and when other things are obtained for it; but because it enters

directly or indirectly as a medium into almost all exchange transactions, and because it comes, therefore, to be employed as the general standard or measure of value, we come to think of it as standing for all the desirable things which its possession permits us to command. Money is the representative of all other wealth. The total social income is, of course, the totality of enjoyable goods that are made available during a given period, but the individual's claim to a share in that social income is allotted to him first in terms of money, and, according as his money income is great or small, he can command a larger or smaller proportion of the social income as a whole. We use money also as a "store of value" and speak of "saving money" when we wish to accumulate a fund that we can draw upon to meet some future contingency. From beginning to end the notion of money permeates our economic thinking and not without reason, for the prevailing economic system would be impossible without it.

Abstinence is reflected in saving money

Today, therefore, "abstinence," which was said to be the first step in the creation of capital, is reflected in what we call "saving money." The individual who receives a money income may elect to "spend" it or to "save" it. If he "spends" his entire income he is thought of as using it in the purchase of immediately enjoyable goods and services which, after they are "consumed" or destroyed, leave nothing, perhaps, but pleasant recollections behind them. If, however, he elects to save a part of his income he may save it in several ways. He may hoard the money itself, he may put it into a bank of some kind, he may use it to purchase an investment security like a mortgage, or a bond, or a certificate of stock, he may lend it to some other individual or he may "put it back" into his own business, if he has one, in the form of payments for wages, for equipment, or for raw material.

The savings which add to the social capital equipment are those which, to use the common term, are "invested." Mere hoarding of money by the individual is from the

Savings must be invested to benefit society

social viewpoint absolutely meaningless, just as for the isolated individual mere abstention from consumption unaccompanied by positive activity devoted to the production of capital goods adds nothing to capital equipment. Investment in the ordinary sense means to clothe or to embody in some form or other. It may be undertaken directly by the individual himself, as when he uses the saved income in his own business, when he lends it to another or when he purchases with it some form of investment security or income-earning property; or it may be indirectly accomplished as when the individual puts the saved income in a bank or similar savings institution. In either case the point to be emphasized is that the purchasing power represented by the saved income is devoted to the purchase of goods or services which normally leave behind them, after their destruction, a larger sum total of enjoyable goods than would have been available without their use. The business man, for example, who borrows a sum of money on which he agrees to pay interest normally uses the sum borrowed to enlarge his plant, to buy more machines, or in some other way to add to his equipment, and from the use of the enlarged equipment he expects to get, by the time the obligation matures, an increased product out of which he can not only pay the interest and repay the principal but also obtain for himself a sum sufficient to compensate him for his risk and trouble. Unless savings were so "productively" employed the payment of interest would obviously be impossible. In last analysis then, the difference between saving money and spending it is not the difference between holding on to it and parting with it, nor even the difference between preserving it from destruction and destroying it, but simply the difference between spending it for immediately enjoyable goods and spending it for "indirect" or "capital goods." Since spending for capital goods normally increases the demand for such goods, as opposed to consumers' goods, an impetus is given to the creation of capital

goods, and the net result of "saving" and "investment" is the creation of such goods and a consequent addition to the social capital equipment.

Modern economic organization assumes considerable saving

Under the modern division of labor large numbers devote their entire time to the production of capital goods. Their continuance in business obviously rests on the assumption that each year a considerable part of the money returns going to individuals will, through the purchase of such capital goods in the manner described above, be put back into industry to renew, or to add to, the existing social capital-equipment. Thus it is that "saving" on the one hand and *"investment" on the other add to that portion* of the social wealth which is collectively spoken of as social capital.

The purpose of saving and investment is the increase of want satisfaction

As already stated, the ultimate aim of the accumulation of capital is the increase of goods that human beings can enjoy. This is the aim of all productive effort. Men put forth productive effort in order to gratify their wants, and it is only the effort which results in increased want satisfaction that can be said to be really productive. Moreover, the "value" attached to the result of such effort is intimately connected with the want satisfaction that this result will afford. Thus, the value of all capital goods arises from the fact that they are expected ultimately to make possible a larger supply of consumers' goods. The value of a shoe machine, for example, depends in first instance upon the value of the shoes that it helps to make, and effort is expended in making the machine rather than in directly manufacturing the shoes because it is believed that in the long run the effort thus indirectly applied will yield a greater value in shoes than if equivalent effort were to be directly applied to shoe manufacture. Finally, it may be said that it is the prospect of sharing in this increased production of the future that normally affords one of the strongest incentives to those who through "saving" make possible the creation of capital goods.

From what has just been said it will readily be under-

stood that the social interest is best subserved by having capital that has been embodied or "invested" in a certain form put to productive use as soon as possible. Society gets the benefit from the capital invested in a railroad only when the railroad is operated; or from that in a shoe machine only when the machine is actually being used in the manufacture of shoes. Speaking broadly, idleness of capital is almost as bad as lack of capital. But under a highly complex division of labor whole groups devote their time and energies to the production of capital goods which they do not themselves expect to use, but which they hope to part with through exchange. More simply, they produce capital goods and expect to sell them. In so far as the producer of capital goods thus makes them for sale rather than for personal use, it must be apparent that society gains most when he can sell his product as soon as possible after he has completed it,—in other words, when there is a rapid transfer of such capital goods from the maker to the user. It is capital in rapid flux that spells prosperity for the community.

Social interest requires the speedy and constant use of available capital implements

The possibility of selling capital goods depends, however,—as was indicated above—upon the existence of "savings." That is to say, since people do not sell goods for nothing, there must exist somewhere the wherewithal to purchase them. Furthermore, this wherewithal must be available in acceptable form for him who wishes actually to use the capital goods. But here we are confronted by the difficulty that the "savers" and the "users" are not necessarily the same persons. Indeed few business men today depend entirely on their own savings for their capital. Almost all supplement individual savings through borrowing. It follows then that in a society characterized by a complex division of labor it is a matter of great economic importance to provide machinery for putting into the hands of possible users of capital the opportunity for getting control of such capital as may be available.

The sale of capital goods depends upon the existence of available money savings

In a community where there is this complex division of

labor and where the whole economic life is based on the use of money, saved income available for investment appears in the form of money funds. Without attempting at this point to analyze further the exact nature of such loanable funds it may be said that their amount depends upon the money value of the wealth that has actually been created and that still exists as a part of the community's store of possessions. This necessarily follows from the sole serviceability of money as a medium of exchange. The prospective borrower of capital appears therefore first as a borrower of money funds. It is, of course, conceivable that a borrower of capital—say a shoe manufacturer—should go to the several producers of machines, raw materials, *etc.*, and *borrow from them the machinery* and supplies necessary to increase his output. But such a method would be intolerably clumsy and time-consuming, and would limit to a comparatively narrow field the process of borrowing and lending capital. It is much simpler and much more expeditious for a borrower to go to a lender of money—or of its equivalent, credit—and to borrow from him the sum needed to purchase the various capital implements required. This is, of course, the practice that obtains in all advanced communities, and what we broadly speak of as the money market is for the most part really the "capital" market, the market, namely, where the "savers" are brought into contact with the "users" of capital.

The borrowers who use funds for further investment are called entrepreneurs

To the users of capital we give the name "entrepreneurs" or enterprisers. They borrow capital in the form of liquid money funds and then devote the sums borrowed to some productive use. They buy machinery and supplies, hire labor and rent land. They then organize these factors in further production of wealth. The prices they have to pay for the several factors are normally fixed for them by market conditions. The same may be said of the prices obtained for the finished product. The risk of loss that is necessarily involved in such an arrange-

ment must of course be borne by the entrepreneurs, but theirs also is any profit that may arise.

Modern industry necessitates the tying up of much capital

The importance of the control of capital to the entrepreneur increases as production becomes more roundabout. More wealth is tied up in plant and equipment and in raw material. Wages must normally be paid before the sale of finished product brings in any return. Credit is usually extended even when the finished products are marketed. All these things and others involve the tying up of the entrepreneur's resources, and require more and more of such resources. Such needs exceed for the most part the entrepreneur's capacity to supply them, but even though that were not necessarily the case, the needs are normally inconstant and intermittent and it would not be economical for him to try to supply them entirely himself. With the growth and extension of the "roundabout" process, then, the tendency is for the entrepreneur to become increasingly dependent upon others for the control of the capital necessary to permit him to begin anew, or to continue, any given line of wealth production.

Social interest demands the speedy release of available capital to entrepreneurs

It is to society's interest also that he obtain this capital. Inability to regain control of capital tied up or surrendered means for the entrepreneur a restriction of productive capacity, and consequently for society a limitation of the output of wealth. No entrepreneur, who through the control of additional capital could make a substantial net addition to the community's output of wealth ought to be prevented for any length of time from obtaining such capital. If capital is available but is withheld society loses more than does the entrepreneur.

General function of banking

In a money economy, however, obtaining the control of capital is, as was indicated above, a question of obtaining control of money funds, and the heart of the broad social problem of getting the saved capital into the hands of active producers with the least possible delay is to be found in the gathering together of loanable money resources and the distribution to the highest possible social advan-

tage of such resources among producing entrepreneurs. And it is just in this connection that we must seek the function of a country's banking system. The stimulation of saving, the gathering together of the amounts saved, the promotion of productive investment and of the rapid utilization of the resulting capital implements suggest the main outlines of this function.

Three types of banking are distinguishable

The banking function as a part of the process of wealth production is, however, a broad one, and a treatise that aimed to discuss the subject in all its breadth would have to deal adequately with all the different types of banking. From the point of view of this treatise three general types of banking may be distinguished, namely savings, investment, and credit or commercial banking. It is not maintained that rigid lines of demarcation can be drawn between the different types, but the differences between them are great enough to have won a general recognition both in theoretical discussion and in practice.

The savings bank

It is the function of savings banks to mobilize funds temporarily not needed but requiring to be kept in semiliquid form. The typical savings bank depositor is one who has a temporary surplus on which he wishes, if possible, to earn some return, but which nevertheless he regards it as necessary or desirable to preserve in an easily redeemable form. The money in the savings bank is accumulated for the Chistmas expenditures, for the new home, or for some other such special object, or it is accumulated for the general purpose of having a fund available in case some unforeseen emergency arises. Under the circumstances, it is not necessary for the savings bank depositor to have his deposit payable on demand. He is usually in position to give some notice of the intention to withdraw all or a part of his deposit.

The character of its business

Owing to this character of the savings-bank deposit a high percentage of savings-banks funds are normally not drawn upon. In a progressive community, with trusted savings banks, current withdrawals are usually more than

offset by new deposits. This is so generally the case that in ordinary times the banks need not avail themselves of the privilege usually accorded to them by law of demanding preliminary notice of the intention to withdraw funds.

Its deposits

The character of the savings bank deposit is also of importance from the viewpoint of the utilization of its funds. The savings bank can definitely "invest" a large proportion of the funds intrusted to its care. Its investments must be made with an eye to the possible and probable withdrawals, but safety and security are of greater importance in this field than are immediate redeemability. Consequently, even where savings banks are carefully regulated by law they are usually permitted to invest their funds in such forms as acceptable corporation securities and real estate mortgages.

Its loans

On the other hand the borrower from the savings bank is one who needs capital for definite investment purposes. He is usually a landholder, who wishes to improve his property and who gives as security a mortgage on the property, a corporation that supplies security in the form of bonds, or an individual who wishes a fairly long-time loan and can offer a mortgage or satisfactory bonds or stocks as independent security. At any rate, the funds obtained are usually "tied up" for a considerable period of time and while the savings bank making the loan may through possible sale or transfer get back the funds originally invested, this possibility is predicated upon the existence and availability of new investment funds. Ultimate liquidation comes, in the main, only from the contributions of the investment itself.

Hence the character of the savings bank is that of the middleman, but not that of the middleman whose work is finished when he has brought principals together. There is always the obligation resting on the savings bank of repaying the savings intrusted to it at least after due notice. It must therefore assume responsibility to the depositor for the manner in which its funds are employed.

The investment banker

The investment banker on the other hand is a middleman pure and simple. Those having new enterprises to finance come to him for aid. He studies the situation and decides on what basis the financing can best be done. He may make some advances of his own to meet immediate needs, but, in the main, he expects to raise the necessary capital by interesting his clients. When the organization of the new enterprise is complete and when the issue of securities, *etc.*, has been arranged, the effort is made directly or indirectly to interest those with funds to invest. The banker may appeal to his own clients or he may through listing of securities on stock-exchanges endeavor to attract the general, investing public. Whatever the method of procedure, however, his activities are limited by the amounts that he can so gather together.

The character of his business

The investor himself is one whose main object is to increase future income through a profitable investment of his savings. While he ordinarily prefers to have his investment in a readily saleable form the return of his principal in cash is not of primary importance. Certainly the investment banker, after once having sold securities to his client, or having obtained them for him, accepts no responsibility for the return of the sums involved. If the investor wants his money back he has to take his chances in the market, while the making of the investment in first instance comes under the general rule of *caveat emptor.*

Hence it may be said that the function of the investment banker is to mobilize investment funds, and to assist in the apportionment of these funds to productive uses. The projects that he takes up, and the recommendations that he makes, are, of course, of far-reaching importance to economic development, but he is limited in his activities by the amount of actual investment funds of which he can obtain control.

The commercial bank

The economic function of the commercial or credit bank is more fully discussed in a subsequent chapter. It is this type of banking with which this book is concerned. Here

it may be said that the commercial or credit bank is an institution *sui generis*. It is not merely a middleman, but is a highly creative, dynamic agency that goes farther in its control of capital than the money actually intrusted to it would indicate. On the money actually in its possession it builds a structure of credit, and this credit as a claim to value is even more important than money itself in the process of exchange. Without anticipating the analysis in the subsequent chapters it may be said that the credit extended by the commercial bank takes the form of deposits and of notes. In so far as these forms of credit serve to obtain control of a part of the community's saved wealth, the bank extending the credit virtually controls the use of such wealth. As the notes and deposits constitute liabilities payable on demand, from the depositors' and from the noteholders' point of view they represent temporary surpluses instantly available in liquid form. To preserve the liquid character of its credit the commercial bank cannot, of course, consent to the utilization of its funds for long-time investment purpose. This credit can be employed only in short-time productive operations where the original investment is quickly followed by sale and return of principal. Hence through the creation of credit payable on demand the commercial or "credit" bank may be said to mobilize and to apply to productive use that portion of the wealth of the community which is in a relatively liquid form, and which must be preserved in that form.

It is the purpose of this book to explain how the commercial bank carries out this function, and to set forth what principles must be borne in mind in the organization of such banks into a nation-wide system, if they are to be permitted to render the maximum economic service of which they are capable.

SELECTED REFERENCES

Charles F. Dunbar, *Chapters on the Theory and History of Banking* (1906), Chapter I.

H. G. Moulton, *Principles of Money and Banking* (1916), Part II, Sections I and II.

CHAPTER I

THE BANK'S OPERATIONS

The term bank is ordinarily applied to an institution which receives deposits of money or of credit and which seeks profit through the extension or sale of its own credit. It is sometimes said that a bank lends "money," but actual money enters only occasionally into the transactions of a bank. All bank transactions are, however, expressed in terms of money, and if money itself be not employed only that which is equally acceptable will suffice as a substitute.

Definition of a bank

What is a deposit? "Why," says the depositor, "that is an amount of money standing to my credit on the bank's ledger and against which I can draw my check." Is it a specific sum of money actually stored in the bank's vault? Most decidedly not. It is simply an entry that is made on the books of the bank in order to indicate that the depositor, under whose name the entry is made, has a *right to demand from the bank a certain sum of money.* To only a small extent does the depositor actually exercise his right to demand money. In most cases all his purposes can be served simply by transferring his right, as a whole or in part, by means of a check, to whomsoever he desires to make a payment. The result is that the bank finds it necessary to hold in actual cash against its deposits only a fraction of the total liability represented by the sum of all the deposits. The cash so held is called the "reserve." The general nature and purpose of the reserve will be more fully discussed later on.

Nature of a deposit—simply a book entry

Only a percentage of deposits needs to be held in cash

"If a deposit is not cash," it may be asked "what is it?" It is simply that elusive something to which we give the name "credit." From the viewpoint of the depositor

Bank deposits are simply credit

himself the deposit is equivalent to cash because it is a right to demand cash from a thoroughly responsible agency. From the viewpoint of the bank the deposit is simply a liability, an obligation to pay cash, which in all probability will not have to be met for some time to come. That is to say, in place of the cash itself which the depositor has a right to demand he is satisfied with the naked obligation of the bank to pay. As long, therefore, as the deposit is allowed to stand it represents simply "credit" based on the confidence that the bank has been able to inspire in the depositor.

Deposits preferred to cash because of safety and convenience

Why, it may be asked, should a person desire to have a mere right to demand cash from a bank when he might just as freely have the cash itself? This is another way of asking the question: why should a person prefer to deposit money in a bank rather than keep it at home? There are of course several excellent reasons. In the first place a bank deposit is much safer than money in hand or at home. The risk of loss, theft or destruction of a sum of money in the pocket or stored in a place of uncertain security at home is normally ever so much greater than is the risk of failure to meet its obligations on the part of a well established bank. Of course, a good many worthy people have a profound distrust of all banks and bankers, preferring to sacrifice possible earnings of interest and to run the risk involved in hiding the money at home rather than to intrust it to the safekeeping of others. But while in earlier years this distrust often had ample justification, today there is less and less reason for it, and it tends to survive only among the very ignorant.

In the second place a bank deposit offers a more convenient method of payment than actual money affords. This is especially true where the amounts involved are large. It is a relatively simple matter to write out a check for a large amount, but the counting out of a large sum of cash in coins or in bills is tedious and time-consuming. Not only is the writing of a check simpler than counting

out cash, but the check itself with the payee's indorsement is a valid receipt for the sum paid. Ordinary receipts may be lost in the mails or otherwise destroyed, or they may even be fraudulently withheld, but a bank will not pay a check until it is properly indorsed, and after paying it the bank itself safeguards it and delivers it only to the depositor or to his known representative. So thoroughly satisfactory is a canceled check as a receipt that some large firms neither give nor ask for receipts when checks are used as the medium of payment. Furthermore, it may be pointed out that the entries of receipts and payments on the books of the bank often constitute a valuable secondary record, the accuracy of which is, in most cases, little short of absolute. Indeed, considering only the matter of payments to be made, it would be difficult to imagine what the modern business man would do without his bank account and his check book. It is only in the field of retail trade that cash payments enter to any noteworthy degree, and even here the greater safety and convenience involved in the use of the check as against cash is telling always more heavily in favor of the check.

The usefulness of checks

Bank deposits, against which checks are drawn, may be obtained in several ways. The prospective depositor may deposit actual cash, namely, coin or currency; he may deposit checks and drafts[1] drawn on his own bank or on other banks or individuals; or he may get his deposit by getting the bank to "discount" notes or bills for him or to "lend" to him with or without the deposit of collateral security of some kind. These several methods of obtaining deposits may now be considered more fully.

Bank deposits may be obtained in several ways

The deposit of cash in a bank is really a sale for cash by the bank to the depositor of a right to demand an equivalent sum. It was pointed out above what, from the viewpoint of the depositor, a deposit in the bank really constitutes, namely a naked right to demand. It was also pointed out that, from the bank's point of view, a deposit

With cash

[1] The term "draft" is used broadly.

constitutes a liability. Hence when the depositor surrenders cash to the bank he is really simply buying a right to demand an equivalent sum and is paying cash for it. This, authorities agree, is the exact situation legally. When once the cash has been paid over to the "receiving teller," and proper entries have been made, it becomes the absolute property of the bank. The depositor may, of course, demand an exactly equivalent sum, but he cannot demand to have returned to him the identical coins and bills that he originally surrendered.[1]

The question naturally suggests itself, why should a bank care to exchange for cash a right to demand an exactly equivalent sum? The answer to this question can be more satisfactorily discussed somewhat later. Here it will suffice to say that there is no profit to the bank in the mere receiving of cash deposits.

With checks and drafts

The deposit of checks and drafts is really an exchange of credit. The check when legally drawn on a given bank is a valid order on the bank to pay the sum specified to the person named on the face, or to his order. The payee simply by writing his name in the proper place across the back of the check may transfer it to someone else, and title may thus continue to pass from one to another by the process of indorsement. Thus a mere order to pay money which constitutes in the hands of the legal owner a right to demand the sum specified may serve the purpose of money itself. About the same may be said of the draft, whether drawn on a bank or on an individual. When, therefore, a check or draft is transferred by indorsement to a bank, and is then deposited in such bank, it is equiva-

[1] The story is told that some of the bankers in Germany kept a careful record of the actual coins deposited by their peasant clients and saw to it that exactly the same denominations were returned. This was done because the peasants nourished the fond delusion that the banker simply locked away in his strong safe the moneybags that they brought to him, and that the bags were subsequently returned to them intact. They would not have intrusted their money to bankers had they believed otherwise. It was obviously to the banker's interest to preserve this delusion.

lent, if the instrument is good, to a cash deposit. The only difference is that the depositor can immediately draw his check against a deposit of cash, whereas, ordinarily, the bank will not honor a check drawn against other checks and drafts until they are collected. But in essence the transaction represents an exchange by the depositor of an embodied right to demand money from an individual or from a bank for an unembodied right to demand from his own bank an equivalent amount, less possible collection charges. Since actual money does not pass at all in the transaction, and since only "rights to demand" are involved, it is apparent that the transaction throughout is purely one of credit.

The process one of exchange of rights

Examining the process still more closely we can consider each case separately. Suppose that a depositor A in bank No. 1 draws his check in favor of B, who is also a depositor in bank No. 1. We already understand that A by drawing his check simply embodies the whole or a part of his right to demand money from bank No. 1 and transfers to B the proportion so embodied. In the great majority of cases, B does not exercise his newly acquired right to demand cash, but he takes A's check and "deposits" it. That means simply that he indorses it and surrenders his claim against the bank to the bank itself. The bank then cancels on its books to the amount of the check so deposited A's further right to demand, and at the same time it makes an equivalent credit entry in B's favor, increasing thereby his right to demand exactly to the extent that A's was curtailed. That is to say, the transaction between A and B was settled, without the use of actual money, through two simple book entries.

Between depositors in the same bank

Somewhat more complicated in method but analogous in principle is the case where A and B are not depositors in the same bank. B, let us assume, is a depositor in bank No. 2. A's check representing an embodiment of some proportion of his right to demand money from bank No. 1, is now deposited by B, in whose favor it is drawn, in bank

Between depositors in different banks

No. 2. In this case B, by indorsing the check and by surrendering it to bank No. 2, transfers to his own bank the right to demand money from A's bank, namely bank No. 1. Bank No. 2 credits B's account with the sum so deposited, and then presents the check for payment to Bank No. 1, which pays the check and which then debits A's account, that is to say, curtails to the extent of the check his further right to demand. In paying the check, Bank No. 1 may employ cash, but in most cases, through the clearing house system, these payments are balanced against similar collections that are to be made, and differences alone are settled in terms of cash. The transaction here then involved simply a transfer by A to B of a right to demand from Bank No. 1 and a retransfer of this right by B to his own bank, which gives in exchange an equivalent right to demand from itself.

Other possibilities

Still more complicated would be the process involved in the acceptance as a deposit subject to collection by a bank of a note, draft, *etc.*, against third parties, who pay the claim by means of a check on some other bank. But it is not necessary to consider all the possibilities in detail. In principle they are alike even though in practice they may be both complex and elusive.

Loans and discounts

Lastly, we have to consider deposits growing out of discounts and loans. Here too we have virtually an exchange of credit.

Discounting in general involves the present evaluation of (and the possible provision for) some future contingency. When we are "making allowance" for a prospective situation in any field of human interest we are said to be discounting this situation. The future contingency that a banker evaluates is a right to collect money. The promissory note may be taken as an example. A promises to pay B a specified sum of money at some future time—say three months—and embodies that promise in a written note. This promissory note is a "credit instrument" that at the time of execution has a definite and calculable value.

The value of the note at the time of execution is not, of course, the same as its value at maturity. Three things tend to create a difference, namely, rate of discount, the time that must elapse before maturity, and the uncertainty concerning A's ability and willingness to pay. Time, rate and risk are elements that must be taken into account in the evaluation of all kinds of credit instruments.

The importance of the time element and of the rate

The longer the time that a given credit instrument has to run the less does its present value tend to be. In the case of the promissory-note exchange assumed above, had A paid B cash instead of asking him to accept a note, B could have put the money out at interest in some form, so that at the expiration of the three months he would presumably have had the principal *plus* the interest. The same opportunity to add to the principal would be open to anyone having the given sum. Hence, apart from risk, nobody would give B the face value of the note until the date of maturity. The most that B could expect to get would be such a sum, which when put at interest at the current rate, would, at the date of maturity of the note, yield the amount promised on its face. This sum, which is spoken of as the present value of the note, tends to increase as the period of maturity shortens, and as the interest rate declines.

The importance of risk

But risk, too, must be taken into account. Apart from having to wait for the promised sum there is the inevitable possibility that the promise itself may not be kept. The degree of this possibility naturally varies from promisor to promisor, but it exists to some extent in practically every credit instrument. Government bonds are perhaps least affected by it. But in general it may be said that the greater this risk of nonpayment at maturity, the less is the present value of the credit instrument.

Both time and risk are reflected in the rate

Allowance for both time and risk in the valuation of credit instruments is ordinarily made only in connection with the "rate" at which such instruments are said to be "discounted." When the banker "discounts" a credit

instrument of any kind he is simply buying it, paying as a price approximately its "present value," determined, as was described above, by the prevailing interest rate, the time involved and the risk assumed. Thus he may discount A1 paper or "prime bills"—namely, commercial credit instruments in satisfactory sums and maturities,—issued or indorsed by tried and trusted business firms, at a comparatively low rate. Other borrowers, offering paper of the same denomination and maturity, but enjoying less exalted credit, will have to "pay a higher rate"—that is, will receive a smaller sum in exchange for their paper. The banker who is the normal purchaser of such paper, in making allowance for risk, simply adds something to the interest that he demands. Thus A, whose credit is good, may discount at 5% paper bearing his indorsement, while B pays 6% and others 7%, or even 8%. The margin beyond current interest is a charge for the risk.

The nature of loans

The "loan" differs somewhat from the "discount." In discounting any form of commercial paper the banker really buys an independently existing and embodied right to demand a certain sum of money. The process involves the deduction of the interest in advance and this may be said to be its characteristic feature. Moreover, the field of discounting is narrowly restricted. It covers only rights to demand of comparatively short maturities growing presumably out of previous transfers of actual wealth. Discounts are not adapted to long-time, fixed investments. They are normally serviceable only where capital circulates rapidly. Loans, on the other hand, may be used for any purpose and may run for any period of time. They normally involve, not the purchase of a future claim at a lower present price, but simply the repayment at a specified time by the borrower of a sum equivalent to that received from the lender, with the payment of interest at the agreed rate at specified intervals in the meantime. Ordinarily also the loan is specially secured with valuable property of some kind turned over to the lender as col-

lateral. While security may be required for discounts none is ordinarily demanded beyond the claim that the indorsements on the credit instrument themselves give against all the legally attachable property of the indorsers. Security is usually more necessary in the loan than in the discount, because the loan is extended to a given individual, group, or firm to whom alone the obligation to repay is confined; but in the case of notes, bills of exchange, *etc.*, offered for discount, through the addition of one or more "names" or indorsements the obligation to pay is more broadly extended and the risk assumed by the purchaser is correspondingly lessened. In like manner the foundation of a discount is more secure than that of a loan because the discount normally grows out of a transfer of wealth representing a completed transaction on an established basis of value, whereas a loan is less definitely connected with given transactions and tends to be, therefore, somewhat more speculative. Lastly, it may be mentioned that largely as a result of the differences already referred to the discount is much more liquid than the loan. The discounted instrument can be rapidly passed from hand to hand. Loans can ordinarily be transferred from one lender to another lender only with considerable difficulty, and usually only as a result of the intervention of the borrower himself.

Security important in loans

Deposits then may be obtained through discounts and loans as well as through the payment of cash or of immediate rights to demand cash from others. But in the discount and loan we are dealing simply with rights to demand cash in the future. The deposit, which, as was shown, is simply a present right to demand cash from the bank, is exchanged for a future right to demand cash from the borrower, whoever he be. The transaction, in other words, is purely a credit transaction, namely, one of an exchange of rights. The essential difference of time, however, gives rise also to a difference in the present value of the two kinds of rights, and it is in the purchase, at the present

Obtaining deposits with discounts and loans purely a credit transaction

valuation, of future rights to demand from others in exchange for present rights to demand from itself that, in the main, the bank finds its source of profit.

Cash deposits important to bank

Although, as was stated above, a bank finds no profit in the mere acceptance of cash, checks, *etc.*, for deposit, every bank is, nevertheless, extremely desirous of getting the greatest possible amount of such deposits. The reason is, as will now be shown, that these greatly increase the bank's "lending" power, or its power profitably to sell present rights to demand for future rights to demand.

Depositors seldom exercise their rights to demand cash

The bank learns by experience that depositors will exercise from day to day only a fraction of their rights to demand represented by their deposits. Those who deposit cash itself certainly do not immediately want cash, for if they did the task of making the deposit would constitute a useless expenditure of energy. Depositors of cash may want some money in hand from day to day, but in this case they are confident that it can be obtained, and hence they call for it only in so far as an actual need is felt. All the cash that the bank has to keep on hand for this purpose is, therefore, the proportion of the cash deposits that is likely to be withdrawn from day to day. Such cash constitutes the "reserve" held against deposit liabilities based on cash itself. The remainder of the cash can then be used as a basis for discounting or for lending purposes.

Small cash reserve adequate

All depositors alike in this respect

It is important at this point to note that the great majority of those who have paper discounted or who borrow from the bank do not want actual cash. They, like the depositor of cash, may experience an occasional need for money in hand, but normally they want simply a deposit on the books of the bank, which deposit gives them a right to demand cash should they need it, and which they can split up and transfer as a whole or in part, by means of checks, to whomsoever they may have payments to make. This is of tremendous importance to the bank because it requires the bank to hold in actual cash as a reserve only

a fraction of the total obligations represented by the additional deposit liabilities growing out of loans and discounts. A given addition to the available cash reserve will, therefore, permit a much wider extension of deposit liabilities than the sum represented by the cash itself. Just how wide this extension may safely go is a matter that experience alone can determine, and its determination constitutes one of the most important problems that the practical banker has to solve.

Checks or notes on other banks as good as cash to given bank

To a given bank the depositing of checks drawn on or of "notes" issued by other banks is almost as satisfactory as the depositing of cash. These checks and notes confer on the lawful holder, as was seen above, the right to demand cash. When they are surrendered to a bank as a deposit the bank may exercise this right or it may simply use the right as an offset to similar claims against itself which, as deposits, may have come into the possession of such other banks. In both cases the net result is the same. Had the bank elected to demand the cash it would have had to meet with cash the claims presented by other banks. The gain of cash on the one hand would have been offset by the loss of cash on the other. It greatly simplifies matters directly to offset the respective claims as far as that is possible. Where the notes of one bank may be used by other banks as a part of their lawful reserve, as is the case with the notes of the large central banks of Europe, the notes, as long as they are good, have, to the banks receiving them, all the advantages of cash itself. In general, then, it may be said that where there are adequate collection or "clearing" facilities checks and bank notes are for the practical purpose of obtaining deposits equivalent to cash itself.

The clearing system strengthens a bank's lending power

The "clearing system," which involves the mutual cancellation of claims by banks and the payment in cash of differences only, strengthens greatly the bank's lending power. In almost every community in the United States where there are more than two or three banks one can find

a "clearing house."[1] A "clearing house" is ordinarily a place where the representatives of the associated banks gather from day to day to present to each other the checks and other items which, under the rules of the association, may be presented for collection through the clearing house. Each bank is ordinarily represented by two clerks. The duty of one is to receive and to record the claims presented for payment by all the other banks. The duty of the other is to present in regular order the claims of his bank against all the other banks. The amounts are fully reported to an officer of the clearing house who makes the proper entry on the day's clearing sheet and who then calculates for each bank its debit or credit balance as the case may be. It is this balance alone which is paid in cash. On the New York Clearing House, where the exchanges run from $300,000,000 to $1,000,000,000 per day, the average percentage of cash required to pay the balances is barely five. This obviously permits a large economy in the use of cash. If a bank had to keep on hand each day enough cash to meet all the checks that are presented to it for payment its cash reserve would needs be much larger than it is under the clearing system. But since under the checking and clearing system a bank can count on receiving as deposits from its own depositors checks on other banks aggregating an amount approximately equal to the amount withdrawn by check from day to day, and since in the clearings the amounts withdrawn may be balanced against the amounts paid in, it is only for the possible debit balance at the clearing house that cash provision has to be made. The gain to the bank in lending power is apparent.

Permits economy in the use of cash

This profitable to banks

Every addition to the lending power of the bank means not only the possibility of serving the community more broadly but also the possibility of a larger profit for the bank itself. The general relation of banks to the commun-

[1] These have been faithfully studied and their methods described by Mr. James G. Cannon, and in this place nothing will be said about them beyond what is necessary to explain their function

ity will be more fully discussed in a subsequent chapter, but here a further word or two may be said about the increase of loanable resources from the bank's point of view.

Depositors usually maintain a balance

A depositor of cash or of rights to demand cash, which in practice are as good as cash itself, does not, as was stated above, want cash itself, nor does he normally withdraw his whole deposit by means of checks. He maintains pretty constantly a "balance" which naturally varies from time to time, but which in most cases is not allowed to drop below a given minimum. The same thing is true of him who obtains his deposit as a result of a loan or discount. Indeed, in the case of most business men, who have paper discounted or who make loans, and who have occasion to make cash and similar deposits as well, no distinction arising from the source of the deposits is ever made or thought of. Cash and checks are deposited and notes and bills are discounted as a matter of daily routine. The negotiation of a loan may suggest more than the ordinary need for funds but even here in some lines of business, as in stock brokerage, borrowing is the normal means of getting the customary funds. Hence, irrespective of the source of the deposits, it may safely be assumed that practically all depositors will keep, as a condition of maintaining the account, a minimum balance greater or less, according to the possible and usual requirements of the bank itself, and also according to the scope and magnitude of the transactions effected by the depositors through their accounts.

Minimum balances constitute a guarantee against withdrawal

The maintenance of such balances is an assurance to the bank that the rights to demand cash represented by the deposits will not only not be directly exercised by the depositor, but also that they will not be transferred by means of checks to others. This double assurance is important to the bank because it means that on the one hand there will not be, within the limits of the balances, a direct withdrawal of cash, and that, on the other, within the same

limits, there will be no debit balance at the clearing house. Since the bank uses its cash reserve simply to meet direct demands for cash and to settle clearing house debit balances the minimum balances maintained by depositors represent only dormant liabilities against which no active preparations have to be made.

Example of influence on bank's profits

The significance of these matters to a bank's profit account can be forcefully illustrated by assuming a hypothetical case. Suppose that a bank has cash deposits of $200,000, and suppose further that in the absence of any legal restriction, the bank learns by experience that because of the general use of checks as currency in its community and because of the maintenance of comfortable balances by the depositors, a cash reserve of 10% is adequate to meet direct demands for cash as well as possible debit balances at the clearing house. Twenty thousand dollars would then suffice to meet the cash demands of, and the clearing house requirements arising from the checks drawn by, the depositors of the cash. One hundred and eighty thousand dollars would then be released to the bank for other purposes. If now borrowers from the bank have about the same relative cash needs as the depositors of cash, and if they maintain an approximately equivalent average balance, the whole of this $180,000 may be used as a 10% reserve for the deposit liabilities that the bank may safely add to those assumed when the cash itself was deposited. In other words, instead of earning interest on only $180,000 the bank may earn interest on just ten times that amount, namely, $1,800,000. On the basis of a 4% rate this would mean an annual income of $7,200 if the bank's lending power were limited to the actual cash held above the reserve required for cash depositors; but when this cash may itself be used as a 10% reserve against further deposits extended to the public the annual income at the same rate leaps to $72,000. This is to say, on a 10% reserve basis every dollar in cash means an increase of $9 in the bank's lending

power. That explains why the bank can afford to maintain an expensive establishment, to supply stationery and to undertake free of charge the collection of checks, coupons, *etc.*, for its depositors. In the banking business nothing succeeds like deposits.

Bank notes

In the discussion preceding there has prevailed the tacit assumption that a bank dispenses its credit, namely, its obligations to pay cash on demand, only in the form of deposits, while only incidental reference has been made to bank notes. As a matter of fact, however, where unrestricted by legal enactment, the extension of credit by the bank may be in the form of its own notes. But in most countries the issue of notes is subject to rigid regulation, and so important from many points of view is the question of deposits versus notes that the whole of the next chapter is devoted to it. Here the effort will be made simply to point out the similarity between these two forms of bank credit.

Definition

A bank note is the duly executed promise of the bank to pay the holder on demand a specified sum of money. Bank notes are issued usually in convenient denominations so that they can circulate freely from hand to hand as a substitute for the monetary units in which, according to the promise on their face, they are redeemable. The individual who acquires possession of a bank note has therefore by virtue of his possession a right to demand money from the bank. But this, we saw, is exactly the right conferred on the depositor by virtue of his "deposit." What then is the difference between the two rights? The difference is only one of form, and of scope of usefulness. The deposit is an unembodied right to demand money which circulates as a substitute for money in the form of a check requiring indorsement as it passes from hand to hand. The bank note is an embodied right to demand made out to bearer and hence does not require indorsement as it passes from one holder to another. But from the bank's point of view both of these forms of credit are "demand liabili-

Likeness between deposits and notes

ties," *i.e.*, liabilities which have to be paid on demand, and the necessity for keeping itself always in condition to meet "demand liabilities" as they are presented is just as strong in the one case as in the other. Other things being equal then, and assuming the absence of any special restriction, the credit that the bank extends will take one or the other of the two forms, or both, in such proportions as, in its broad relations with its clients, the opportunities for profit to the bank seem to dictate.

Notes not obtained for cash

Bank credit in the shape of notes, unlike deposits, is practically never purchased for cash. An individual who possesses cash in the shape of greenbacks or gold certificates, for example, would have no inducement to take such currency to the bank merely for the sake of getting bank notes. The bank notes are no safer and no more convenient than are the gold certificates and the greenbacks. There may, of course, be an incentive to get a bill changed, or perhaps to get rid of heavy coins in exchange for the more convenient paper bills, but such incentives do not imply a demand for bank notes as such. Government bills would ordinarily be equally satisfactory. Hence the bank rarely gets an opportunity to make a direct exchange of its notes for cash.

Notes often substituted for deposits

It is often possible, however, for an issuing bank to substitute its credit in the form of notes for its credit in the form of deposits. A depositor, for example, transfers by means of a check the whole or a part of his right to demand cash from his bank. The payee may prefer to have currency, but the nature of the currency in which payment is made is a matter of indifference to him as long as it is generally acceptable. In cashing the check the bank may therefore simply pay out its own notes, and if that be done the bank's liabilities are not altered in the slightest degree. There is simply a change in the form of such liabilities, the disembodied right to demand represented by the "deposit" having become the embodied right to demand represented by the "notes." As long as the notes

remain in circulation they are almost in all respects like the unused balances of depositors.

Cashing of checks with bank notes simply an exchange of rights

Somewhat different in nature is the "cashing" with its own notes by a bank of a check drawn on another bank. This is in essence a substitution by the issuing bank of its own credit, in the form of notes, for the credit in the form of a deposit of the bank on which the check is drawn. From the viewpoint of the individual who cashed the check the process involves simply the exchange of a demand obligation in one form against a given bank for a demand obligation in a different form against another bank.

Discounts the chief source of issue

For the most part, however, an issuing bank gets its notes into circulation as a result of discounting or lending, although the same thing must be said of the bank's credit in the form of deposits. Before the rapid development of deposit banking bank notes were by far the most important form of bank credit. This is still true of Germany and France, although it is tending to become less so. But today, especially in England and in the United States, the use of checks has grown to such enormous proportions that most people desiring bank accommodations wish simply a checking account and do not desire cash or currency. Where, however, note issue is of importance, "loans and discounts," which in banks of deposit are responsible for the greater part of the deposits, are similarly responsible in banks of issue for most of the outstanding notes.

Notes and deposits correlated sources of profit to bank

Lastly, it may be pointed out that just as there is no difference in the nature of the liability represented by the bank note as contrasted with the deposit, so there is no difference from the point of view of production of income. The profit that the bank earns is simply a question of the rate charged for loans and for discounts. At a given rate the return is the same whether a given amount of credit be extended in the form of a deposit or in that of an issue of notes. Practically the only cause of a possible preference by the bank for one form to another is to be found in connection with the relative duration of life of the two

forms of credit—but this point is more properly discussed in a later chapter.

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CHAPTER II

DEPOSITS VERSUS NOTES

In the previous chapter it was indicated that bank deposits and bank notes, the two main forms of bank credit, are from the bank's point of view substantially similar. Both are "demand obligations,"—that is, liabilities of the bank payable in cash on demand, the difference between them being only one of form.

The deposit a naked right to demand

The deposit is a naked right either to demand or to order payment of a given sum of lawful money. To be made effective the deposit must be embodied in some form by the depositor himself. The only tangible evidence of this right to demand that the depositor holds is, in the case of the ordinary deposit, in the form of an entry in his "pass" book. This may be supplemented by canceled checks, *etc.*, but so absolutely essential to the success of the bank is the confidence of its depositors and of its note holders that, irrespective of the moral character of its managers or of the inability of the depositors to present legal evidence attesting every element involved in their deposits, it would be suicidal for a bank to tamper in the slightest degree with a depositor's account.

The check a valid order on the bank to pay

The instrument by means of which the deposit is made serviceable is the check. Through the check the depositor may transfer to another any proportion of his right to demand money from the bank. Where the check has been legalized, checks properly inscribed must be honored by the bank on which they are drawn. This does not necessarily imply that the payee can always demand cash. Provision is made in some countries for the drawing of checks payable, at the option of the depositor, only through the clear-

ing house or by depositing. Thus, in England there is the system of "crossed checks" under which a check having two lines drawn across the face must be deposited and cannot be cashed.[1] In Germany a system of pink and white checks is used, cash never being paid on a white check. During the panic of 1907 some New York banks issued to depositors checks which bore the inscription "payable only through the New York Clearing House." Cash was not paid on such checks. This inability directly to demand cash does not, however, constitute a hardship to the payee because the acceptance of the check in payment of his claim against the depositor is in first instance purely optional. In the case of the New York banks after the panic it was the banks themselves that refused to pay cash, but in this case refusal to pay was equivalent to suspension. Under the "crossed check" and pink and white check systems it is the depositor who orders the bank not to pay the cash[2] and the motive in so ordering is self-protection. The bank itself must always be ready to pay cash. Its refusal to do so spells bankruptcy.

Bank notes are definitely embodied promises to pay

Bank notes, as contrasted with checks, are, as has been seen, definitely embodied promises of the bank to pay. Their form, denomination, *etc.*, are determined, within possible legal limits, by the bank itself. As they are usually issued in convenient denominations they enter readily into circulation as substitutes for the money issued by the government, although they represent in themselves simply promises to pay such money. Their acceptability grows out of the fact that it is generally believed that should the noteholder elect to present his note for redemption the bank can and will fulfill the promise represented by the note. Originally the issue of notes was a common-law right, the theory being that individuals would accept them only if they were good. Experience, however, early taught

[1] In practice crossed checks are not infrequently cashed by the banks for their customers.

[2] Under the crossed check system it may even be the payee himself.

the necessity for putting safeguards and restrictions around note issue, and today in most countries the whole matter is carefully regulated by law. The reasons for this will be set forth shortly. Here it will suffice to say that within the limits prescribed by law the bank notes may pass freely from hand to hand. In the hands of each successive holder they constitute rights to demand lawful money, and, in the absence of special protective legislation, the failure on the part of the bank to pay money when the notes are presented for redemption, constitutes a confession of bankruptcy, exactly as in the case of a failure to meet the lawfully presented demand of the depositor.

Bank notes pass freely from hand to hand

Recognizing the essential similarity of notes and deposits as demand liabilities from the bank's point of view, the question naturally suggests itself, what are the circumstances that determine which of the two forms the bank's credit shall take? Or, assuming that this credit takes both forms, what shall be the proportion of each? The answering of this question must be reserved, however, for a later chapter. A satisfactory answer can be given only after an examination has been made of the relative possibilities and limitations of bank checks, by means of which the deposits are made serviceable, and of bank notes in their respective capacities as media of exchange. In other words, we have to consider the two kinds of instruments from the viewpoint of the general public as well as from that of the bank.

Deposits and notes from the point of view of the public

Bank checks

The limitations of the check

The check, as already stated, is an order on the bank drawn by the *depositor*. The check itself, however, bears no evidence that the depositor enjoys any right to formulate such an order. Of course, there are usually stringent enactments against drawing worthless checks, but, as everybody knows, these laws act simply as deterrents and not as absolute preventives of fraud. Furthermore, the check bears no evidence of the amount of the depositor's balance. There may be no question about the existence of the depositor's account but there may easily be uncertainty as

Uncertainty as to account or balance

to the *adequacy* of his balance. A check overdrawing the depositor's account is little better from the payee's viewpoint than one drawn against a nonexistent account. It is obvious, therefore, that the acceptance of a check in exchange for goods or for services involves a considerable confidence in the integrity of its maker. Such confidence in most cases is necessarily limited to the depositor's immediate circle of friends and business associates. Within that circle his checks may be "as good as gold" but beyond it they tend rapidly to lose acceptability as a means of payment. Owing to this restriction of the scope of their acceptability checks are usually referred to as instruments of "limited acceptability."

Acceptability narrowly circumscribed

Confidence underlying check is twofold

The confidence that underlies the acceptability of the check as a means of payment is really twofold. There is first the confidence in the maker's integrity and solvency. This has already been referred to. There is next the confidence in the bank on which the check is drawn. After all, the check represents merely the transfer by the depositor of the right to demand money, while the important thing to the payee is the ability to obtain money should he really need or want it. Hence, the payee must have faith in the maker of the check, and also a more fundamental faith in the immediate willingness and ability of the bank on which it is drawn to pay the sum called for should the check be presented. Such faith must also characterize the depositor if he is to maintain rather than draw down his deposit.

The "reserve" is important for this purpose

One of the important elements in the preservation of this confidence is the cash reserve maintained by the bank. The right to demand cash is satisfactory as a substitute for cash itself only in so far as it is instantly redeemable. Individuals may recognize and understand that a bank has outstanding against it more rights to demand cash than the sum-total of cash available for redeeming the rights, and each one may know that not all possessing such rights will at any given moment exercise them, yet each one believes

that should he himself actually want cash the required sum would be instantly forthcoming. Such a belief is possible only when there is general assurance that an adequate sum of cash is kept constantly on hand, and while this cash may thus seem to be lying useless and inactive, as a matter of fact it is doing, through the credit instruments based on it, a highly intensified work.

Many circumstances influence reserve requirements

The circumstances determining the adequacy of a given cash reserve against deposit liabilities are numerous and complex. Most of them also are subject to variation, and long experience is necessary to gauge them accurately. What is a perfectly safe and adequate reserve today may be quite insufficient and disquieting tomorrow. In general it may be said that the amount of reserves required by a bank depends upon the habits and business conditions of the community in which the bank is operating, and more particularly upon the kind of clients that it has and the nature of their several businesses. Thus in a manufacturing and commercial community where exchanges are numerous and rapid it might be necessary, other things being equal, to maintain a relatively larger reserve than would be required in an agricultural community where exchange transactions are much less frequent. On the other hand, as in the crop-moving season in the country, it may be necessary to maintain a larger reserve at one time than at another. Again, where the use of checks is widespread and where the banks need anticipate only a relatively small demand for hand-to-hand currency, smaller reserves are required than would be the case if the use of hand-to-hand money predominated. Finally, without attempting to do more than to suggest a few of the more important influences, it may be said that where a bank has relatively few but large depositors it is apt to need a larger reserve than a bank with numerous small accounts, because the more numerous a bank's clients the less likelihood is there of any general movement in the deposits, and the greater are the chances of an approximate bal-

ancing of income and outgo. Considering only the few influences that have been referred to, it will be readily agreed that the calculation of a proper reserve is a delicate as well as an important task.

There is a conflict of motives in the management of the reserves

A circumstance that adds materially to the difficulty involved in calculating the reserve is the conflict of motives that harasses the banker in the process. The smaller the reserve that is necessary the greater is the lending power and possible profit of the bank. This will be readily seen in the following example. Assuming a 25% reserve to be necessary, a cash deposit of $100,000 leaves a sum of $75,000 available as the required reserve for advances in the shape of deposit credits. In this case the loanable resources of the bank are increased $300,000. At a rate of 6% per annum that would mean an annual return of $18,000. But if a 10% reserve were adequate such a cash deposit would release $90,000 for reserve purposes, which sum would permit an increase of loanable resources of $900,000. Here at 6% per annum the annual returns would be $54,000! But every weakening of the reserves leaves the bank more vulnerable in case of an enlarged demand for actual cash or of increased withdrawals which result in heavy debit balances at the clearing house. Inability to meet the demands for cash or the debit balances at the clearing house spells failure for the bank, and avoiding failure is, of course, even more important to the banker than heaping up profits. Without surcease, however, the lure of profit tempts the banker from the path of safety and security.

Variation in the demand for credit facilities must also be provided for

If the banker properly apprehends his function there is also something more than safety to be taken into account in the management of the reserves. In the division of social labor a certain function is assigned to the bank, and the community at large depends on the bank properly to exercise that function. The social significance of this function will be subsequently referred to, but here it may be said that it is the business of the bank to extend credit.

The relation of the reserves to the credit so extended has been sufficiently set forth, but attention may be called to the fact that the demands on the bank for credit are not constant. In normal times a certain average demand may be made on the bank and a given reserve may be adequate to supply the necessary facilities. But there are times when the demand increases, when the bank is called upon to render additional and unusual services to the community through the extension of credit facilities beyond the normal. For this the bank should be prepared. That is to say that besides the normal till-money necessary to meet the ordinary demands over the counter and at the clearing house from day to day, the bank should have a real "reserve" that will enable it to expand its operations when there is a need in the community for additional facilities. It is this idea of providing for a special and unusual strain that is suggested by the very word "reserve." We may thus amend what was said above concerning the conflict between safety and profits in the management of the reserves by adding to safety, in the balance against profits, the desire for full and conscientious service.

Some of the bank's investments must be in the nature of a secondary reserve

The nature of the liabilities assumed by the bank in the conduct of its business requires that the bank's investments be so arranged that they constitute a supplementary or secondary reserve. Most of the bank's liabilities are, as we know, demand liabilities, *i.e.*, liabilities payable in cash on demand. We know, however, that, as a matter of fact, the bank has in actual cash only a percentage of its outstanding liabilities and that herein is to be found the possibility of its earning profits. An increased need for cash can then be met only through the sale of some of the bank's assets. These assets must, therefore, be of a kind to permit ready sale. They must, in other words, be of such a character that they will, in due season, naturally, easily, and without loss, liquidate themselves, or that with a minimum of trouble and of risk of loss they can be readily "marketed" by the banker himself.

The selection of a bank's investments requires great sagacity

It is in the selection of investments for the bank's loanable resources that the banker needs to call into service all his talents. Such a selection requires not only a knowledge of and an ability to analyze human nature, but also a broad acquaintance with economic conditions and an ability to foresee developments in the future. It is in this connection that the banker's work is most important for human society, and as he does that work wisely and with sound judgment or unwisely and recklessly, he advances or he impedes economic progress.

Experience has demonstrated certain general principles

Years of experience seem, however, to have demonstrated the validity of certain general principles in the matter of assets or investments for the bank carrying a heavy burden of demand liabilities. It may be said, for example, that the most satisfactory investments are those embodying a promise or order to pay a specified sum of money itself. The great advantage of such investments is that they ultimately liquidate themselves. Their values can at any given moment be definitely calculated, and when they mature the exact sum specified must be paid, irrespective of the many possibilities of fluctuating prices in the market for other things. It is unnecessary for the banker to do anything but wait until the obligation matures. Then he collects the amount due and the transaction is closed.

Specific promises or orders to pay are most satisfactory

Not all are equally good

These promises or orders to pay money are, of course, not all equally available. Some are more secure than others and some also are more easily convertible into cash. Other things being equal the banker will prefer the investments that carry the least risk and that offer the largest possibility of rapid conversion into cash.

Paper growing out of commercial transactions is most acceptable from viewpoint of security

From the point of view of security the order of availability may be indicated as follows: First, promises or orders growing out of mercantile transactions. These are acceptances, notes, bills of exchange, *etc.* They are in general spoken of as "commercial paper" which is accepted by the bank for discount. They originate in the buying and selling of goods which goes on

as a regular part of the production of wealth. They carry comparatively little risk because they usually represent wealth in the process of transformation from lower forms to higher forms. Thus when the manufacturer provides bank acceptances in order to obtain raw material the ultimate basis of their value is one that is growing, and the manufacturer normally finds himself in a stronger position financially when the acceptances mature than that which he occupied when they were originally executed.

Loans secured with stock exchange collateral come next in order

Secondly, may be cited the promises or orders which are specifically secured by the deposit with the banker of easily marketed bonds, certificates of stock, *etc.* Here we are dealing with loans secured with what is ordinarily called "stock-exchange collateral." This is so called because the stock-exchange offers an always-open market for certain listed securities. The security of a loan so extended, entirely aside from the integrity of the borrower, grows out of the certain possibility of marketing the collateral, should that be necessary. The prices of the stocks and bonds dealt in on the exchange are regularly published, and it is easy for the banker to keep himself informed about them. Of course there is the danger of a drop in the price, but the banker protects himself against such an eventuality by allowing as a loan only a percentage of the selling value of the proffered securities.

Loans on the great staples follow

Thirdly, may be mentioned the loans secured by the great staples—wheat, cotton, *etc.* These commodities are ordinarily offered as security for loans through warehouse or similar receipts. There are regularly organized markets for them where for a given supply the individual can count, with relative certainty, on finding, at some price, either a buyer or a seller. The security to the bank of a loan based on such collateral also grows out of the instantaneous marketability of the collateral, and the risk involved is simply a question of the range of possible price fluctuation. But here too the banker endeavors to protect

himself by allowing as a loan only a percentage of the selling value of the security that he holds.

Loans on other commodities and on real estate are least desirable

Lastly, may be mentioned the loans secured by other commodities or by real estate. In Germany so large an institution as the Reichsbank makes advances on almost every form of wealth except land. There is a humorous saying that if you are hard pressed you can take your shirt to the Reichsbank and get an advance on it. Where there are no legal restrictions the only question that the banker needs to put to himself is, Can I sell the collateral and what price can I get for it? Of course, the banker expects the borrower to repay the advance and he does not expect, except in a minimum number of cases, to have to sell out the security. That is to say, he counts on remaining a banker and not on establishing himself as a merchant. But as far as the safety of the loan is concerned, the question involved is one of the marketability of the security. Here the further away one gets from large organized markets of the kind provided for securities and for the staples, the more problematical does marketability of the collateral, and the larger, consequently, does the risk in making the loan become. Real estate is at the very bottom of the list as far as marketability is concerned, because each parcel has characteristics of its own and these are differently evaluated by different individuals. At best the market for real estate is narrowly circumscribed, and at times it is absolutely nonexistent. A banker must then of necessity be very careful about loans on ordinary commodity or on real estate security. Indeed the ordinary commercial bank eschews such chattel and real estate loans altogether, leaving to special lenders not carrying heavy demand liabilities the field thus unoccupied. Moreover, in some cases, as was formerly the case in our national banking system, banks are prohibited by law from engaging in this branch of lending.

The question is one of marketability

From the point of view of convertibility two questions arise, the one concerning the period or duration of the

indebtedness and the other the possibility, before final maturity, of a resale of the claim against the debtor. This second question, however, has to do with conditions that are beyond the control of both the banker and his client. It is simply a question of fact, is there or is there not a general market, to which, if necessary, the banker may turn? This is a question of great importance, but it can be more intelligently discussed in connection with the requirements of the banking system as a whole. Here will be considered, therefore, simply the question of the duration of the investment.

From the point of view of convertibility, the period of the debt and the possibility of resale are important

Most satisfactory is the "call loan." It is so designated because it is repayable at the option of the bank, the lender, as well as at the option of the borrower. Its field of usefulness, however, is small. The ordinary business man can hardly ever use a loan on call. He borrows from the bank primarily to get "circulating capital," that is, capital which "ripens" fairly rapidly into what is for him finished product. It is out of the sale of his finished product that he expects to obtain the funds wherewith to repay the loan. But in the great majority of cases the transformation of the original capital into finished product occupies an interval of time that precludes the possibility of obtaining such capital on a call-loan basis. The loan might be called considerably before the time when, through the sale of his product, the business man would find himself supplied with funds with which to repay his obligation. Virtually only those dealing in forms of wealth that are instantaneously marketable can afford to borrow on call. In such cases, should the loan be called, the articles purchased with the borrowed funds can be momentarily thrown on the market and disposed of, and funds can be thus obtained to repay the loan. Hence, in the United States it is practically only the operators on the speculative markets who can avail themselves of the call loan. In England owing to the peculiar constitution of the banking system, under which in times of emergency a competent

"Call loans" are most readily convertible

The ordinary business man cannot use it

borrower can turn from the ordinary banks to the Bank of England, it is mainly the "discount houses," using discountable bills as collateral, which borrow on call. On the continent of Europe the call loan is of comparatively little significance. Owing, therefore, to the narrow limits within which it finds a field of usefulness, and, in consequence, to the relative preponderance of supply over demand, the rate on the call loan usually ranges considerably below the rate that can be obtained on time loans.

Short-time loans are next in availability

Short-time loans are next in the order of availability. The distinction between short- and long-time loans is of course purely a relative one. In general practice, however, paper and loans maturing within ninety days are spoken of as short-time credits. Those instruments running longer than ninety days pass into the long-time class.

These may be arranged to provide daily maturities

It is naturally in the field of short-time advances that a bank burdened with heavy demand liabilities finds its safest and most profitable sphere of usefulness. When wisely ordered these loans can be distributed in such a manner that some will fall due each day. Should it then become necessary for the bank to strengthen its reserves, it can do so by simply curtailing further loan and discount operations. The daily receipts accruing from the payment of maturing obligations will then more than offset the added liabilities.

Long-time loans are unacceptable except in sparing proportions

Long-time operations are not only more hazardous, because of the difficulty of accurately forecasting the distant future, but they also tie up funds for longer periods. It may be said, therefore, that, except in sparing proportions. long-time loans are not suited as investments for banks whose liabilities are chiefly in the form of demand obligations.

Other forms of property are held by banks

A glance at almost any bank statement will show that in addition to investments in loans and discounts the bank holds considerable quantities of stocks and bonds and not infrequently real estate and other valuable property. Possession of these different kinds of property is often obtained

through the sacrifice of security by a defaulting debtor. More often, however, especially in the case of stocks and bonds, purchases are made for investment purposes in the open market. Moreover, all over the world the commercial bank seems to be invading the field of investment banking, underwriting security issues, *etc.*

A serious question is involved here

Just how far the commercial bank ought to go in this direction is a serious question. It holds in its control the bulk of the community's liquid capital. The disposition that it makes of its loanable resources determines how that liquid capital is to be used. Investments for a long or for an indefinite period, as in the case of bonds and stocks, represent a tying up of liquid capital in relatively fixed forms. From the social point of view the success of the fixed investment depends upon the steady flow of circulating capital proceeding from it, that is, upon the full utilization of the fixed capital in the transformation of lower forms of wealth into higher. An investment of capital in a rolling mill, for example, pays society best when the mill is being used to capacity. The mill can be used to capacity, however, only when there is a steady flow of raw material through the various stages of manufacture to finished product, and when there is also a rapid absorption of the finished product. The disposition of the finished product and the replenishing of raw material in turn depend upon the diversion to that purpose of a considerable part of the community's purchasing power represented by the loanable resources of the banks. Beyond a certain margin, if those resources are used to stimulate the creation of more plants, *etc.*, as is the case when the bank buys stocks and bonds or underwrites new securities. rather than to facilitate the most economical use of the establishments already created, as is the case when the bank uses its funds in discounting and lending. the community is bound to suffer. In the long run, where banking is unhampered by legal prescription or practical difficulties of any kind the matter from this point of view

Banks largely control the disposition of society's liquid capital

Too much of this may be put into fixed forms

In the absence of restriction competition would take care of this

could be expected to adjust itself satisfactorily through the normal working of competition; but where there are legal or other impediments obstructing the easy flow and ebb of loans and discounts a critical mal-diversion of capital may result.

Fixed investments are subject to the hazards of the market

Perhaps even more important, considering the nature of the ordinary bank's business, is the risk that is assumed in tying up funds in forms the liquidation of which depends upon the hazards of the market. The rise of a sudden emergency, such as an unexpected loss, a panic, *etc.*, may require a bank to realize rapidly on its assets. Such a necessity, however, is not infrequently an outcome of conditions which at the same time tend to depress the price of stocks and bonds. Selling securities on a falling market may jeopardize the bank's ability to meet promptly and fully its demand liabilities, and inability to meet such liabilities means, of course, failure.

Several factors determine the proportion of fixed investments that a bank can make

Nevertheless, it is generally agreed that a proportion of the bank's resources can safely and profitably be invested in that way. Just what that proportion should be is a relative matter. It would depend, among other things, upon the general standing of the bank itself. A bank of long and distinguished history could feel relatively certain that even in times of general distrust, only a small proportion of its outstanding deposits would be withdrawn. A bank not yet enjoying the confidence of the community might on the other hand have to count, in similar emergencies, on having a very large proportion of its deposits withdrawn. Another important factor would be the character of the people in the community in which the bank operates as well as that of the bank's individual clientele. If people are ignorant, or if they are unsettled and distrustful, they are likely, in times of pressure, to withdraw their funds more heavily than when they are enlightened, settled, and not easily thrown into a state of panic. Finally, another factor which has to be taken into account is that of the facilities offered to the bank for marketing such

investments. A bank in a community with an established stock exchange might be perfectly safe in investing considerable sums in securities regularly dealt in on such an exchange, because of the facility with which the securities could, if necessary, be sold. A bank far removed from such a community, however, might find it hazardous to tie up anything like the same proportion of its funds in securities. What in any particular case the safe proportion may be is something that the banker himself is probably the best person to determine, just as, in the long run, where a high sense of responsibility is enforced, the selection of the particular items concerned can also be most safely intrusted to his discretion.

Capital and surplus are in practice commonly so invested

Ordinarily, conservative practice seems to justify the investment of most of a bank's capital and surplus in interest-bearing securities. This, in all probability, grows out of the peculiar function of the bank's capital and surplus. A bank, as has been seen, is an institution that deals in credit. What it lends is not actual money, but credit. In its statement the capital and surplus appear as a liability, but that is because the bank is looked upon as a business organization that is under certain obligations to its owners as well as to its clients. But to the creditors, *i.e.*, the depositors and noteholders, the capital and surplus represent simply a guarantee fund that can be drawn on if necessary to pay their claims. If the bank officials make no errors of judgment in discounting and lending, there ought to be, for every dollar represented by deposits and notes on the liability side, hard cash or a safe investment on the asset side. If this were always the case capital, except for banking house and fixtures, *etc.*, would be unnecessary. But since infallible judgment is beyond human attainment, a guarantee fund is necessary to reassure the creditor and thus to create and to maintain the confidence without which banking would be impossible. Since then capital and surplus are simply guarantee funds, drawn on only in case of loss, and not depended upon for the ordi-

nary activities of the bank, there seems to be no reason why they should not be invested in any way that the bank managers see fit, as long as they are in forms that can without loss be drawn upon to fulfil the mission for which they are ordained.[1]

Publicity is also an important factor in maintaining confidence

Confidence, it has been said, is the corner stone of the business of banking. In addition to what has already been said concerning the creation and maintenance of confidence, attention may be called to another very important factor, namely, publicity. The degree of publicity that may be necessary in a particular community depends upon a good many circumstances lying outside of the field of banking. English country banks may retain the confidence of their clients without publishing very elaborate or illuminating reports, because of the trust reposed in the family in control or simply because of respected tradition and of stolid adherence to the conventional. But in the United States where there is more or less contempt for tradition, where there are few if any long-standing family businesses, and where the individual is taught to regard himself with lofty concern, there is an insistent demand for full publicity in almost everything. Moreover, this is held to be specially necessary in the field of banking, where, despite notable achievements, there have been all too many cases of inexcusable recklessness and of the most conscienceless fraud.

Correlated with this is governmental supervision

Correlated with publicity as a factor in maintaining confidence in banks is governmental supervision. People always have confidence in the integrity of the government, and the assurance that the government is keeping a watchful eye on the affairs of banks engenders a confidence in these institutions that nothing else could stimulate. The word "national" in the names of the banks in the national

[1] The failure of the First-Second National Bank of Pittsburgh a few years ago illustrates the danger involved in tying up too large a sum in relatively illiquid investments. While the bank had a capital of a little under three and a half millions it had invested in bonds, stocks, *etc.*, more than eight millions.

banking system of the United States is distinctly an asset to the banks. Hartley Withers says that the knowledge that the "government" is behind the Bank of England is responsible for the unlimited confidence that that great institution has always enjoyed. So successful has governmental supervision of banks in general been in thus creating and preserving confidence that Professor Seager considers this result alone as an absolutely conclusive argument in favor of such supervision.

This has varied in practice

In practice this supervision has varied in nature and scope. For the moment we are concerned only with deposit banking, and here not so much needs to be said as in the case of note issue. In few countries is the depositor given the special protection that is accorded to him in the United States. In our country it is customary to require the banks to maintain minimum cash reserves of a prescribed percentage of the deposit liabilities. Furthermore, the banks are often restricted in the choice of their investments. Real estate, for example, is only partially acceptable as a basis of bank operations, and other lines of business that the bank might engage in are either specifically, or, through lack of positive legal sanction, impliedly forbidden. Occasionally also special guarantee funds directly or indirectly in the control of the government itself have been required. Reports to the government and the publication of more or less detailed statements in the daily press are perhaps the most common requirements, but in the United States there is in addition regular governmental examination of books, checking of reserves, passing upon investments, *etc.* As a matter of fact, however, the depositor, as will be seen shortly, is much less in need of special protection than is the noteholder.

The nature of the bank note gives it wide acceptability

The bank note has already been described as the formally executed and definitely embodied promise of the bank itself to pay. It thus differs from the check which, as was seen, is simply an order to pay drawn on the bank by an individual. This difference accounts for the fact

that the bank note enters generally into circulation, passing freely from hand to hand and enjoying wide acceptability, while the acceptability of the check is narrowly restricted to the immediate circle of the maker and his associates.

The bank is known

The bank is, of course, in most cases more widely known than is the individual depositor. Its operations naturally throw it into direct contact with large numbers of individuals in all lines of business enterprise, whereas the private business, even though its scale of operations be large, finds its points of contact limited to those engaged in the same or kindred lines. Furthermore, the credit of the bank is usually more securely established than is that of the individual. It has a definite and known amount of capital and usually also a considerable surplus invested as a special guarantee to its creditors. This is particularly true of a bank organized as a corporation. In some countries also there is special supervision of banks by the government. Law, public opinion, and even competition often enforce considerable publicity of a bank's affairs, and more is, therefore, apt to be known about the standing of a bank than about that of a private individual. In most cases also the issue of bank notes is supervised or even minutely regulated by the government, and not infrequently the notes themselves are vested with a certain degree of legal-tender power. The general result of all these circumstances is to place the bank note as a medium of exchange on a much higher plane of acceptability than that on which the check finds itself.

Confidence in notes a question of redeemability

The confidence involved in the general acceptability of the bank note—as was seen to be the case in the confidence involved in the limited acceptability of the check—is confidence in *immediate redeemability*. The promise to pay lawful money is acceptable as a substitute for such money only when it is believed that the money can be immediately had if desired. The case here is on all fours with that of the check except that there is felt to be even

a greater certainty in the redeemability of the bank note than in that of the check. The confidence underlying the acceptability of the check covered, as we saw, the integrity of the maker as well as of the *bank, but in the case of the* note the bank alone is concerned. Moreover, long years of sad experience have demonstrated that ultimate solvency of the issuing bank will not suffice to make bank notes freely acceptable if immediate redeemability be denied. There must be a belief in the certainty of immediate availability in cash or the notes will drop into instant disfavor.

Reserves equally important here

The persistence of this belief also requires the maintenance of a cash reserve. Noteholders may recognize that there would be no point in issuing notes if an exact equivalent in cash were maintained against the notes, and they may also recognize that very few noteholders will want to substitute cash for their notes, but each individual noteholder wants to feel that should he actually desire the cash no obstacle will be put into the way of his getting it. Such a belief requires for notes, as for deposits, that at least some cash be always kept on hand and available for purposes of redemption.

Similarly the required reserve varies

As with deposits the amount of reserves required for this purpose tends to vary under different conditions. One factor of great importance is the general standing of the bank itself. The more securely a bank is established in the confidence of the community the smaller the necessary reserve. In the case of notes also, just as with deposits, another factor is the habits and traditions of the community. A third factor of importance is the legal character of the notes. In France, Germany, and England the notes of the big central banks are full legal tender. Redemption there is purely incidental to the repayment of loans or for the sake of obtaining gold for export. The average noteholder never thinks of demanding cash. In Canada where the notes are freely issued by all the chartered banks, of which there are about twenty, the notes are not legal tender. They are freely acceptable because

Legal tender quality of notes is important here

of confidence in the banks, and there too redemption goes on automatically through repayment to the banks of loans extended, and through depositing and clearing. The ordinary noteholder in Canada probably never thinks of presenting a note for redemption, and yet it can hardly be questioned that the absence of the legal-tender quality in the notes acts as a constraining force on the issuing banks to insure the constant acceptability of their notes through the maintenance of really more than adequate cash reserves. Of course, it must be admitted that where the state enforces the acceptance of bank notes by making them legal tender, it assumes a corresponding obligation to insure redeemability.

Connected with this question is that of the use of bank notes for reserve purposes

Correlated with the question of the tender qualities of the notes is that of the availability of the notes of one bank for reserve purposes in other banks. Ordinarily using notes in this way would be reprehensible in that it would involve a dangerous pyramiding of credit. Where, however, note issue is virtually a monopoly privilege in the hands of a single bank acting as the head of the system and as the guardian of the national reserves, such a limited pyramiding of credit is justifiable because it is economical. But that throws a heavy burden of responsibility on the issuing bank. Its reserves must be considerably greater than would be necessary if its own obligations were not used as a foundation for a further extension of credit by other banks. It is because of a recognition of this responsibility that the big central banks abroad maintain cash reserves equal to from 40% to 80% of their outstanding demand liabilities.

Another question involves the circumstances under which the notes are issued

Another, and perhaps the last, factor to which attention need be called in this connection is that of the circumstances under which the notes are issued. An increase of population carrying with it expanded production and a greater volume of exchanges would give rise to an increased need for money as a medium for transacting such exchanges. If the habits of the community were such as

to make it necessary to have more hand to hand money a considerable part of the amount so needed might conceivably be bank notes. These notes might then tend to remain indefinitely as a part of the permanent money supply with little prospect of being ultimately retired through redemption. It is obvious that for such notes the reserve requirements would not be very heavy. On the other hand the issue of notes may be for the purpose of meeting only a temporary increase in the demand for money. Here ultimate redemption is certain and a larger reserve would in this case be necessary than in the case previously assumed. In general then it may be said that reserve requirements for a given issue would tend to vary according as the issue was intended to meet a temporary or a permanent increase in the demand for the circulating medium.

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The practical task of calculating the proper reserve for an issue of notes is a matter of as great delicacy and importance as it is in the case of deposits. Since, as was fully brought out above, there is little or no difference, from the bank's point of view between the two forms of credit, the same conflict of motives arises in the management of the reserves for notes as in the case of the reserves for deposits. Indeed unless there is imposed on the bank through legal enactment the responsibility of maintaining separate reserves against the two classes of liabilities, the bank makes no distinction in its reserves at all, and considers all the cash in its vaults as a joint reserve fund for both notes and deposits.[1]

The question of secondary reserves also arises

Here also the question of "supplementary reserves" is one of great importance. The necessity of having investments as liquid as possible and of having them in forms

[1] In the Reichsbank, for example, where there is special protection for the note issue but none for the deposits the cash reserve is an undivided fund. In the case of the Bank of England a division is made between the "banking department" and the "issue department" but the larger part of the reserves in the banking department is in the form of Bank of England notes.

that do not involve the tying up of funds for long periods was fully discussed above. All that was said there concerning such investments, publicity, *etc.*, is equally apropos here. The preservation of confidence in the bank is just as essential for maintaining the acceptability of the notes as it is for preventing a wholesale withdrawal of deposits, because a loss of confidence results not only in a "run" by depositors but also in equally pressing demands for redemption by noteholders.

The noteholder is specially protected

The noteholder, indeed, is today given special protection by most governments.

There are good reasons for this

There are naturally some good reasons for this discrimination. The depositor chooses his bank. If he has accumulated a sufficient surplus, or if he carries on operations large enough to warrant his opening a bank account, he is supposed to have enough intelligence to inquire into the standing and character of the available banks, and to choose from among them the one which in his judgment seems safest. Acting purely as a voluntary agent it is believed that the responsibility of any choice that he makes should devolve solely upon him.

The position of the noteholder, however, is in most cases entirely different. The original recipient of the notes from the bank can, of course, like the depositor, exercise a choice. He is not required to accept the notes, but may demand instead gold or standard money. But after he receives them the notes tend to enter into general circulation. He as the original recipient dealing directly with the bank may be presumed to know something about the standing and the security of the issuing bank, but those who in turn accept the notes from him cannot be expected to be so well informed. It may be objected that there is ordinarily no compulsory acceptance of bank notes, and that, therefore, unless an individual feels assured as to the quality of a given bank's notes he need not accept them. But such objection assumes a knowledge of the general money situation in a country and a power to act according to the

Notes fall into the hands of the ignorant and the helpless

dictates of such knowledge that probably a great majority of the people does not possess. Most laborers, for example, even if they knew something about the regulation of the money system, would hardly be in a position to refuse bank notes if these were offered to them in payment of their wages. Even during the days of "wild cat" banking in this country, when almost everybody knew something about the difficulties of the paper currency situation, the heaviest losers, as a result of the numerous bank failures, were ignorant and helpless washwomen, day laborers, and others among the relatively poor who were least able to stand such wicked pilferings from meager savings. Hence every dictate of justice and humanity requires that the state throw its protecting arm around the noteholder to save him from consequences the probability and the intensity of which he cannot in most cases adequately determine.

Various means of protection have been devised

Various means for protecting the noteholder have been devised. He may, for example, be made a preferred creditor. That is to say, the assets of the issuing bank will be pledged by law to be used first to liquidate the bank's notes and only after the noteholder's claim has been paid in full may the depositors and stockholders receive any consideration. Notes are a first lien on the assets of all our national banks under the provisions of the national banking laws. Similarly, in the new federal reserve system noteholders are made preferred creditors.

The noteholder is sometimes a preferred creditor

Stockholders are sometimes subject to additional liability

Supplementary to the special protection afforded by giving the noteholder a first lien there is found, especially in the United States, a provision under which a special liability attaches to the bank stockholder. One of the advantages of the corporate form of organization in industry and commerce is the limited liability of the stockholder. Almost everywhere, in the ordinary business corporation, the liability of the stockholder for the obligations of the firm is confined to his actual holding of stock. In banking corporations, however, the guarantee function of the capi-

tal is so important that it is usually considered advisable to increase the guarantee fund even beyond the nominal capital. This is done voluntarily by banks in the accumulation of a heavy surplus. But the law occasionally insists upon it by requiring the accumulation of a specified surplus, or, without requiring any immediate extra payment by the individual stockholder, by attaching to him a liability for the obligations of the bank beyond his stockholding. Thus every holder of stock in a national bank or in banks in some of the states is liable for twice the amount of his stock. A noteholder in a big bank like the National City of New York, for example, has a first lien on a fund made up of twice the bank's capital of $25,000,000 plus the surplus of $26,000,000. The special additional liability is, of course, also a protection to the depositor, but in view of the noteholder's first lien it is of even greater importance to the noteholder.

Investments are sometimes prescribed

Occasionally also the state will prescribe the investments or the assets by which the notes issued are to be "covered." It is believed that by limiting the discretion of the banker in the selection of such assets errors of judgment culminating in losses may be avoided. Thus Bank of England notes, notes of our Federal reserve banks, and United States national-bank notes are covered in fixed proportions by hard cash and by government bonds. The federal reserve notes, which are the obligations of the government although they are issued by the reserve banks,[1] are covered by carefully defined commercial paper. Similarly, the notes of the Reichsbank and of the Bank of France are based on commercial paper of a designated character. Not only that, but for the purpose of safeguarding the solvency and the redemption of the notes it is sometimes required that these special assets be deposited with an official of the government, who is

[1] The federal reserve notes under our new system must be covered in full by two-name commercial paper of a maturity not to exceed ninety days. See *infra*, p. 251.

empowered, if necessary, to sell them to obtain the funds required to pay off the noteholders. Such is the case with the bonds deposited with the United States government by the reserve and by the national banks to protect their several note issues.[1] The special assets chosen are, of course, those which it is believed can be most easily and economically liquidated.

Special cash reserves are customary

Special cash reserve requirements are also not uncommon. In Germany the Reichsbank is required to keep against its outstanding circulation a cash reserve of 33-1/3% in gold, silver, and imperial notes. In England beyond the £18 million-odd "uncovered issue"—namely the issue based wholely on government bonds—the Bank of England is required to keep a sovereign for sovereign reserve. Hence beyond the £18 millions the notes are virtually gold certificates. In France there is no special cash reserve requirement, but in practice the Bank of France maintains an inordinately heavy reserve in gold and silver. In the United States the reserve banks are required to keep a gold reserve of 40% against the federal reserve notes which they have issued. A special specie redemption fund is provided for the notes of the reserve banks and of the national banks which are based on bonds. This fund is in "lawful money" to an amount equal to 5% of the outstanding notes. It is used by the government to redeem notes and, in case of failure of a bank to keep its quota up to the required amount, the government may sell the bonds deposited as security. This principle of a specie redemption fund was originally worked out in New York during the thirties and forties. It was known as the "Safety Fund" system. Each bank made an annual contribution to the fund until its total contribution equaled 3% of its authorized capital. In New York, however, the fund was used to repay depositors as well as noteholders and the double strain proved more than the fund could support. Had the fund been used only for note redemp-

[1] *Vide* Federal Reserve Bank Notes, page 250.

tion it would have more than sufficed.[1] The "safety fund" principle is a vital element in the existing Canadian banking system. Beyond a limitation of the total issue to an amount equal to the paid-in capital the only special protection afforded to noteholders in Canada is the preferred position given to them as creditors, coupled with a double liability of stockholders, and the maintenance of the mutual guarantee fund contributed by the banks up to 5% of their circulation. Canadian bank notes are acceptable, however, throughout the Dominion. Indeed, it may be said that where there are numerous banks of issue some form of mutual insurance of notes is almost essential to guarantee uniform acceptability.

Government guarantee

As a final assurance to the noteholder mention may be made of the possibility of a guarantee of the notes by the government itself. The United States government, for example, guarantees the immediate redeemability of the reserve bank and national bank notes. The new federal reserve notes are indeed direct obligations of the United States government. In view of the other measures of protection thrown about bank notes in the United States a government guarantee would seem almost to be a work of supererogation. But the guarantee is there, and it undoubtedly clinches absolutely the complete acceptability of the notes throughout the country. There is no such guarantee in France, Germany, or England; nevertheless, in these countries the notes are issued by the big central institutions whose relations with the government are so intimate that there has naturally grown up a feeling of comfortable assurance that if the worst should come the government is "behind the bank."

[1] See Robert E. Chaddock, *The Safety Fund System in New York*, Report of the National Monetary Commission.

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CHAPTER III

THE ECONOMIC SERVICES OF BANKS

Are banks producers?

Having analyzed the main activities of the modern bank and having examined the two forms in which its credit manifests itself we can appropriately consider the question of the importance of such activities in modern business life. In short the question is now raised, what good are banks anyway? Do they help society in the process of wealth production? Are they themselves producers? Or are they parasites reaping where they have not sown?

They safeguard savings

Banks were defined as institutions which receive deposits and which extend credit. In the simple process of receiving deposits apart from the further use that is made of them the banks render a distinct service to the community. In a society dependent upon exchange and upon the use of money, individuals, as has already been said, receive their income in the form of money. The proportion of this money income that is "saved," as we say, determines the amount of wealth that will be returned to society for further use in production. In the first instance then, for the purpose of adding to society's fund of capital it is important to facilitate in every possible way the accumulation of savings. Banks play a considerable rôle in this connection. They provide, usually free of charge, a safe depository for funds. That putting money in bank is a safer way of saving than by hiding it in an old stove or by burying it in the garden, is conclusively proven by experience in the past and by recurring experiences in the present. The chances of loss are less for money in the bank than for money kept at home.

Special banks like savings banks regularly pay interest

on sums deposited. Ordinarily, however, they are protected by law from withdrawal without previous notice. Such banks can, therefore, tie up their resources in less liquid but more profitable forms of investment than the commercial bank, subject to heavy demand liabilities, could afford to consider for the investment of any large part of its funds. But commercial banks too pay interest on "special or time deposits" subject to withdrawal by the depositor only after an agreed notice has been given. Moreover, the custom of paying interest on average balances above a certain minimum is well-nigh universal throughout the United States. For years the payment of such interest was looked upon by conservative bankers as unsafe banking, and it is still so regarded by a large number, but the keen competition for deposits among the banks in the larger cities in time overcame these conservative scruples. But neglecting the possibility of interest on deposit balances the fact remains that through offering, usually free of charge, the opportunity safely to store a sum of wealth, subject to withdrawal on demand or after short notice, banks add to the security and convenience of saving. It may be said, therefore, that one of the services rendered by banks is to stimulate saving.

They stimulate saving

They permit society to economize in the use of capital

Another important service rendered by banks is to be found in connection with their more active functions. Credit, as everyone knows, has come to play a tremendous part in modern exchange. Some estimate that as high as 90% of our total exchanges are transacted by means of credit in one form or another. Professor Kinley's estimate, however, is lower, namely from 60 to 75%. But these estimates do not include transactions settled by means of hand to hand money, most of which, in this country, is itself "credit money." Hence if the use of all credit media were for some reason or other completely abandoned, and the violent assumption were made that the same number of exchanges would be transacted, gold alone would have to be employed as the circulating medium, and the

amount of gold that would be necessary for this purpose on the prevailing level of prices would be many times the amount that is now actually employed. But gold represents a valuable part of the community's fund of capital. It is wealth which, by and large, is dearly paid for in human sacrifice. It follows, therefore, that the less time and effort a community has to sacrifice in order to acquire gold for transacting its exchanges the better off that community will be. The smaller the amount of gold necessary, the larger the sum total of other things that the community may enjoy. Banks, it was seen, supply media of exchange in the shape of deposits and notes, which when properly safeguarded, are normally as effective as gold itself. Indeed, it was shown that where there is no question about the security of these bank media they are preferred to gold because of convenience of handling, *etc.* As the amount of gold needed to maintain the acceptability of these bank media is only a fraction of the total amount of such media that may be made available by the banks, it follows that bank deposits and bank notes are not merely substitutes for gold but they are very cheap substitutes. It may be concluded, therefore, that by supplying a circulating medium that is a cheap substitute for gold banks make possible a heavy saving in the direct use of the community's capital.

They promote the productive investment of savings

Furthermore, when account is taken of the conditions under which bank media are brought into being it will be seen that banks render even a more significant service. They promote the productive employment of the community's free capital.

Modern production in terms of money

The present-day economic organization of society has already been spoken of as the "money economy." Direct production has given way almost completely to indirect production, namely production for a market under a system of money exchanges. What producers take into account is the money value of their goods and services, each striving to get as high a money return as possible.

Thus virtually everybody receives his income first in the form of money or the equivalent of money, and this is then apportioned among the different economic goods which the individual considers essential or desirable for his happiness, and which, taken together, constitute what economists call the "real income."

Money incomes are based on wealth

Money incomes are thus in essence claims to wealth. They can arise in first instance only because wealth has somewhere been produced. The totality of money incomes cannot exceed the total money value of the wealth produced because otherwise we should have to assume that there can be divided up more than actually exists. The use of money complicates the process of wealth distribution, but fundamentally it does not alter the fact that what we really have going on is a dividing up of all the economic goods that have been produced among those who have in some way contributed to their production.

Incomes may be spent or saved

Money income, as we know, can be "spent" or "saved." By spending we usually mean devoting the money income to the purchase of "consumption goods"—goods which directly satisfy human wants and which leave nothing behind them except effects on the consumer. By "saving" we mean the withholding of the money from the purchase of consumption goods. The money saved is then either hoarded, or is directly invested by the owner himself, or it is put into some kind of a savings institution. Hoarding money, however, represents the segregation of a part of the community's capital and the reduction of such capital to utter uselessness. It is analogous to the locking up of a machine of great potential productive powers. Investing the saved money or putting it into a bank or a regular savings institution is like coupling the machine to the engine—it utilizes the potential capacity of the money saved as a further agent in production.

Money deposited in banks is used

The money deposited in banks does not, of course, lie idle. It was shown before that money so deposited adds greatly to the lending power of the banks. What the bank

lends is simply its own credit, but that is supplied in forms that are readily acceptable to borrowers and to those with whom the borrowers have business dealings. These borrowers are men of business who are engaged in starting new enterprises, in enlarging old ones or simply in maintaining established lines of production on their wonted basis. They borrow for a purpose and that purpose is normally to gain control of a part of the community's wealth that is available for use in further production. In other words, business men "invest" the funds that they borrow and that means simply that they *expend* them for purposes of further production. Unless the funds borrowed were productively employed it is obvious that no interest could be paid. Borrowing $100 at 5 or 6% interest per annum and locking the money in a safe for a year would be adjudged by all a most foolhardy undertaking. But when the borrowed funds are used for the purchase of additional raw material, new machinery, *etc.*, there is normally available at the maturity of the debt a sum of wealth which more than repays both the principal and the interest.

Bank credit not itself capital but a means of obtaining capital

The funds that the bank supplies are not themselves capital. The bank cannot by multiplying loans increase society's fund of capital. But these funds are unquestionably a means of obtaining control of capital. The actual capital involved is supplied by the seller who accepts in payment for his goods the bank check or the bank notes. The seller's willingness to accept these instruments is based on his confidence in the solvency of the bank and in the willingness of his own creditors to accept similar means of payment in the liquidation of his indebtedness to them. Thus as long as the bank's credit is unshaken the funds that it supplies are in the hands of the holder equivalent to so much liquid capital. Through the creation of these funds the borrower gets control of capital goods which presumably he could not otherwise have obtained. Similarly the maker of the capital goods purchased by the

borrower finds a customer for whom he might otherwise have looked in vain. But more important still from the social point of view, capital goods that were created but which stood idle have been taken and have been put to productive use. Through its creation of loanable funds the bank has thus made possible the speedy transfer of capital goods from the maker to the user, from him who has no use for them to him who has a use. It may therefore be concluded that the banks through their influence on the investment of saved income stimulate the creation of capital goods and through their creation of loanable funds promote the prompt utilization of these goods.

Banks also release to the entrepreneur capital tied up. Much of what was said above is apropos here, but the point now raised goes even deeper. It concerns the basis of the funds created by the banks. It will be seen that banks virtually coin into a generally acceptable, liquid medium of exchange many forms of wealth which could not themselves pass current as media.

They release capital tied up

In the first place banks make advances on some kinds of wealth in hand. The circumstances governing the selection of the kinds of wealth acceptable as security for the creation of demand obligations were sufficiently discussed in a previous chapter. Suffice it here to repeat that only those forms of wealth are satisfactory for which there is a constant and an open market. The less certain the market is for any form of wealth the less available such wealth is as security for bank loans. But for forms of wealth like stocks and bonds, warehouse receipts for cotton, wheat, *etc.*, the market is open and continuous, and within certain limits the commercial bank whose obligations are almost all payable on demand finds it possible to make credit advances upon them. Savings banks and similar institutions make advances on land security and on other forms of relatively less liquid possessions. In any case what we have in these credit advances is the virtual coining, into a generally acceptable exchange medium, of forms of property

In fixed forms of wealth

that would otherwise represent wealth definitely fixed. In the absence of an opportunity to use such wealth as security for a loan the individual owner could release the sum involved only by selling the property and thus by foregoing its use altogether. The use of wealth as a basis for a loan is in a sense "eating one's cake and having it too."

In advances of goods to others

In the same way banks may restore control of wealth which has been released on credit to others. This is the essence of discounting. A manufacturer, for example, sells a bill of goods to a wholesaler. The wholesaler does not pay cash but offers instead a ninety-days' acceptance. The goods which the wholesaler receives represent a part of the manufacturer's personal fund of capital invested in his business. For the time being the manufacturer surrenders control of this part of his capital, and if he himself holds the acceptance until maturity it means that, in the interim, if he is to maintain his output on the same scale as before, he must draw more heavily on his own resources. If he has not such resources to fall back on the sale of goods on credit would cripple him as a producer. The possibility of discounting his customer's paper, however, saves the manufacturer from this embarrassment. Through the bank discount the claim to liquid funds maturing at a future time is transformed into liquid funds immediately available. With liquid funds so secured the manufacturer can immediately buy more raw material, *etc.*, and his productive efforts are not in the least impaired. The purchase by the banks of bills of exchange, promissory notes, *etc.*, constitutes thus in essence the reëstablishment of the producer in the control of his personal capital, of which he has in the course of his business surrendered particular embodiments to others. The gain to society is in the maintenance of a given tempo of wealth production—the entrepreneur is not forced to slacken his pace because of a surrender of a part of his capital.[1]

[1] The sale of goods on credit is here assumed simply as a fact. Yet it might be argued that were there no sales of goods on credit

They coin ability and integrity

Correlated with this function of releasing to the entrepreneur capital tied up is another of equal significance, namely that of supplying the capable entrepreneur with capital that he would otherwise not obtain. Some business men who have proved themselves honest, capable, and far-seeing can oftentimes get advances from bankers on no security other than their personal notes. These cases are, of course, exceptional, because the risk involved for the banker is great, but instances are found in sufficient number to make the type worthy of notice. Indeed we have examples on an important scale in the system of "cash credits" in Scotland, and in the daily practices of the Canadian banking system. Furthermore in the coöperative credit systems of Europe, the idea of banking on personal integrity and capacity with joint responsibility has grown to a system of huge proportions.

The banks which make advances on purely personal security are thus really coining into a medium of exchange, honesty, skill, and ambition,—they are in other words transforming into "liquid" capital productive capacity itself. The gain to the individual is of course apparent. His increased credit is equivalent to an addition to his own possessions; his operations are extended and his returns are multiplied. Society too makes a considerable gain. Individual capacity is more fully utilized and wealth is produced that would otherwise not be produced. Indirect consequences often result that are of even greater significance. The system of cash credits is given as the explanation of Scotch prosperity,[1] and in Europe it is

there would be no necessity for the service of the bank in releasing or restoring capital surrendered to others. But it could easily be shown that the extension of credit in the sale of goods has economic advantages in variety of choice, promptness of utilization, *etc.* The cost of such credit must, of course, be finally covered in selling price, but large scale production, involving large volume of output, yet ultimate unit distribution of product, would hardly be possible without wide extension of credit.

[1] See, for example, H. D. MacLeod, *Theory and Practice of Banking.*

shown that the coöperative credit societies have in numerous cases improved not only the economic situation of the peasants but their moral and spiritual condition as well.[1] It is to society's interest to have every producer capable of making a substantial contribution to the sum-total of wealth supplied with the capital necessary to his effort.

Their services greatest when their rates are low

There remains a final point to be discussed in connection with the economic services of banks. Social interest is best subserved when the price charged by the banks for advances of funds is as low and as uniform as possible throughout the domestic market.

This price charged by the banks is found in their discount and loan rates. Repeated reference has been made in the previous discussion to the widespread use of credit in modern production. There are relatively few business firms that are not more or less constantly dependent on the banks for discounts and advances, and the prices that business men receive for their goods and services must be high enough to cover the expense of banking accommodation as well as the other expenses that arise in the conduct of business. In other words the discount rate for "money" enters as one of the regular costs of production that must be covered in the selling price if business men are to remain in the field and make their contribution to the supply of their respective commodities. If cost of production be low then price to the consumer tends to be low because of the effect on supply in competitive production. Hence a reduction in one of the important elements in cost, or the maintenance of such an element on a relatively low basis, tends to redound to society's interest through a lowering of final selling price. In short men have to give less of themselves to get their needed or desired wealth than they would otherwise be obliged to give.

Uniform rates also desirable

Not only is a generally low discount rate socially advantageous in an active and progressive economic society, but it is also desirable to have the rate as uniform as pos-

[1] H. W. Wolfe, *People's Banks* (1910).

sible throughout the domestic market. The competitive organization of industry rests on the assumption that in the long run the most efficient producers will supplant the less efficient. But the efficiency here involved is the all-around inherent capacity of the individual himself. With respect to all the circumstances beyond the individual competitor's control it is desirable to have as close an approximation to uniformity as possible. Any purely fortuitous advantage enjoyed by a limited number of competitors gives them a handicap in the race. Railroad rebates furnish a case in point. Discriminatory rates, when extended, go usually to the large and powerful shipper and not by any means necessarily to the most efficient shipper. A large part of the success in this country of some of the big monopolistic combinations in their competition with smaller rivals has indisputably been due not to superior productive efficiency, but in many cases to special advantages of one kind or another. The special advantage may, according to its scope and nature, be a cloak for inefficiency and weakness, and it is desirable, therefore, in the social interest to eliminate all special advantages. There can hardly be any question that differences in the rates paid by competitors for bank accommodation may give rise to such a special advantage in favor of him who pays the lower rate. One important element in his costs is made lower for him than the corresponding element in the costs of his competitors. Of course this very discrimination in rates may itself be simply an indication of differences in efficiency. The firm getting the lower rate may have established an enviable reputation for honesty and promptness in meeting its obligations. On the other hand it may simply be operating in a market where money rates rule lower than they do elsewhere and in this case the lower discount rate gives such a firm a discriminatory competitive advantage. In general then it may be said that in so far as discrimination in discount rates arises as a result of circumstances beyond the control of borrowers of bank

funds it is desirable from the social point of view to eliminate such discrimination.

Summary

Summing up the several points that have been advanced in this chapter it may be said that by stimulating saving, by economizing in the use of capital set aside for the purpose of facilitating exchanges, by promoting the productive investment of saved wealth, by facilitating the rapid utilization of available capital implements, by releasing to the entrepreneur capital tied up and by supplying to the capable entrepreneur capital not otherwise obtainable, banks not only promote the most economical use of capital but they also afford a stimulus to the whole productive process and enlarge the opportunity of individuals with capacity, assuring to society at the same time a fuller utilization of that capacity. Indeed, it might almost be said that modern large-scale production with its necessarily round-about method, with its sale of goods on credit, and with its large dealings would be practically impossible without banks. The dynamic influence of bank credit in a system characterized by rapid flux and readjustment can hardly be exaggerated. The social gain from banks will be at a maximum, however, when, with other things equal, the banking system is so organized as to permit a uniform as well as a low discount rate throughout the domestic market.

The responsibility of the modern banker is heavy. Through the decisions that he makes in extending credit he controls to a considerable extent the flow of the community's capital. His ability to understand and to measure human nature may mean the fulfilment or the destruction of the hopes of the individual, and upon his temperament and his judgment may hang the prosperity of the whole community. If he acquit himself well of the responsibility that is laid upon him he deserves a high reward, but if he be negligent, irresponsible, and self-seeking, his removal from the field of banking should be as prompt as circumstances will permit.

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CHAPTER IV

ELASTICITY OF BANK CREDIT: MOBILITY AND EXPANSION

Circumstances controlling the form of bank credit

The discussion thus far has concerned itself with the nature and with the economic function of the media of exchange for which the banks are responsible. We may turn, therefore, to a consideration of the circumstances controlling the form and volume of these media.

Other things equal form probably a matter of indifference to bank

It has been shown that bank credit is made available in two forms, namely, deposits and notes. Both of these forms are from the bank's point of view "demand liabilities." In the absence of any restriction, and if all other things besides form could be assumed to remain the same, it would probably be safe to say that it is a matter of indifference to the bank which form its credit takes.

Other things are not equal

It cannot, of course, be assumed that for the two kinds of bank credit the "other things" besides form are equal. The costs of administering them can hardly be the same.

Costs vary

Just what these costs would be in a particular case would depend upon numerous conditions, which would probably not be the same for any two banks. The denominations of the notes, the frequency of redemption, wear and tear, the size and volume of deposit operations, the relative reserves necessary, the number of depositors and the general nature of their business—these and other things would determine the relative cost of issuing notes and of extending credit in the form of deposits. Considering simply costs the bank would, of course, prefer the less costly of the two forms.

There are, however, considerations which are more significant than cost of administration. Consider for example the effect on a bank's position of a widespread preference

for notes rather than for deposits. The very preference for the notes would in all probability indicate not only a less fully developed state of confidence, but also a relatively backward condition of trade. Hand to hand money could hardly be employed in a community where trade operations are transacted in large sums and in great volume.

Use of notes involves a great dependence on hand to hand money

Furthermore, the preference for notes rather than for deposits and checks in exchange operations would also in all likelihood be indicative of a similar preference for storing up funds at home rather than for intrusting them to the banks. Such a preference would then tell heavily against the bank's deposits, and would consequently put serious limits on the bank's capacity to extend its operations. Where the deposit and check system prevail most of the money available for reserve purposes is actually found in reserves. Where the employment of checks is largely restricted by the use of hand to hand money a larger proportion of the available reserve money remains in general circulation or in private hoards.

This means a large proportion out of bank reserves

Considering, therefore, the ultimate as well as the immediate interests of the banks it seems safe to say that the deposit and the check system contribute more to banking prosperity than does the note system.

Ultimately banks prefer deposit business

General experience tends to confirm this conclusion. Banking thrives better in the manufacturing and commercial centers, where the check is the usual form of payment in almost all except retail transactions, than it does in the agricultural districts where dependence is more largely placed on hand to hand currency. It prospers more noticeably in England where the check system grew up than it does on the continent where notes still predominate. Moreover, ever since the establishment of the Reichsbank its officials have endeavored to build up the check and deposit system—not only for the sake of the banking fraternity, but also because it was believed that there would be a great saving of capital and a stimulus to industry for the community at large. Finally, it may

Experience confirms this

be mentioned that since the middle of the nineteenth century the development of deposit banking has far outstripped that of note issue, and many huge banking establishments are flourishing which are deprived by law of the privilege of note issue.

The demand of the banks' clients is the important factor

But irrespective of the interest of the bank itself the fact remains that the determining circumstance in connection with the form which its credit shall take is the *demand of the bank's clients.* What the borrower who goes to the bank for funds really wants is a purchasing medium that will be accepted in carrying out the particular purpose that he has in view. Such a borrower can want funds conceivably only for two reasons; either he has a debt to pay or an obligation to meet or he wishes to buy something. Consequently, if he is to use bank credit to meet his obligation or to purchase goods, that credit must be supplied to him in a form adapted to his purpose. As a dispenser of credit the bank, like every other seller, must provide that which it sells in a form to suit its customers.

This demand is socially and not individually determined

It must not be supposed, however, that the demand of the bank's clients is something which is itself simply the product of individual whim in each particular case. Borrowers who have obligations to meet or goods and services to buy must offer in payment a medium which is acceptable to those with whom they are dealing. In other words the demand of the borrower himself for a particular form of bank credit depends upon what other business men with whom he deals consider an acceptable medium. Moreover, these other business men will accept a given medium of exchange only becausse they in their turn expect to use it in paying obligations to or in making purchases from still others. And if we endeavor to pursue further the circumstances determining the demand for the several forms of bank credit, we find that they ramify through and spread out over the whole community in such bewildering complexity that individual preference seems to be ulti-

mately of no concern whatever. These circumstances are really outgrowths of elements lying deep down in social life, and our conclusion must therefore be that they are not individual but social.

An attempt to analyze carefully the social circumstances that are of importance in this connection would take us far afield. The various social activities of a human community are so closely correlated, and the reactions between them are so comprehensive and so complicated that it is virtually impossible to take one set of such activities and to explain them as isolated phenomena. A full explanation in any case would require a complete sociological survey. No attempt will therefore be made to set forth all the circumstances that are of weight in determining the form that bank credit takes in any particular community, but attention may be given to a few of the broader and the more obvious factors. **This is very complex**

Mere habit and tradition may first be mentioned as one of the more important of these social factors. Of course habits and traditions themselves do not spring suddenly into being. They grow up in the first place because particular lines of conduct, or reactions to stimuli, are shown by experience to be best suited to a given situation. They are then repeated whenever a similar situation presents itself. In their inception all that we include in the term "natural environment" plays an important rôle, and while habit and tradition may themselves be considered a part of the "social environment" it must be recognized that their development is greatly influenced by other elements in that environment. But when habits have once been formed and when traditions have once been established, the situations that mainly occasioned them may undergo widespread modifications without seriously affecting the habits and the traditions themselves. Hence, if a community as a result of early experience has cultivated an habitual preference for hand to hand money for purposes of exchange and of storing value, it is difficult, in spite of **Habit and tradition are of first importance**

obvious advantages and inducements, to get its constituent members generally to adopt the system of deposits and checks. The new habit has to come slowly. Thus the German Reichsbank, as already stated, has systematically encouraged the use of the check, but the early preference for hand to hand media was, at least up to the outbreak of the Great War, being only slowly overcome. At that time the deposit liabilities of all the banks in the German empire were hardly equal to those of the banks in New York City alone.

Next in importance is the character of the economic life

Another broad circumstance of much importance in the development of the credit system is the character of the community's economic life. In an agricultural community where exchange operations are relatively few, and, in the average case, on a small scale, there is not the inconvenience attached to the use of hand to hand money that would attend such use if the amounts involved were large and if the volume of exchanges were great. Indeed, in paying off the farm hands and in doing the town shopping the farmer finds a positive advantage in hand to hand money. But in a manufacturing and a commercial community where transactions are on a large scale, where the process of production is continuous, and where the number of exchanges is vast, hand to hand money would offer so many difficulties that it would be almost impossible to conduct business on the prevailing scale if such hand to hand money were, in the absence of checks and deposits, the sole reliance as a medium of exchange. As economic conditions vary the relative demand for the different media of exchange is likely therefore to be variously distributed, and the development of the credit system will be affected accordingly. In general it may be said that as population increases in density, and as acquaintanceship and mutual understanding broaden, as production becomes more continuous, as exchange operations become more frequent and regular, and as the amounts involved become larger, and, finally, as banks themselves become more accessible, the situation as a

whole tends to become increasingly favorable for the development of the deposit and check system.

Other social factors

Still other social factors that deserve mention in this particular are the code of business morality, stability of government and political security, the enforcement of law and the administration of justice. It ought not to be necessary to elucidate these in detail. The use of bank checks as instruments for carrying on exchange is, as we know, vitally dependent upon confidence. Anything tending to preserve or to intensify this confidence tends at the same time to facilitate the employment of deposits and checks. If the code of business morality is such as to put a high premium on honesty and fair dealing and a corresponding stigma on misrepresentation, failure to meet just obligations, *etc.*, it makes possible a higher degree of confidence than could prevail if the moral standards of the business community were lower. Similarly, stability of government and political security are vitally essential to general confidence. How destructive to confidence and general economic prosperity instability of government and political insecurity can become was forcefully exemplified by the situation in Mexico during the recent disorder. Again, whenever a war scare has developed in Europe the peasants have systematically withdrawn their savings from the banks and have hoarded them, preferably in gold, in secret places at home. Lastly, the enforcement of valid contracts, the assurance that justice will be done in cases of misunderstanding or of conflict of rights, the protection of property, the maintenance of peace, and the impartial and prompt enforcement of the law are usually indispensable to the preservation of confidence. Nothing is so destructive of confidence as anarchy and disorder. In times of turbulence banks close their doors, trade and industry are disrupted, and the consequent fear and uncertainty destroy the very possibility of credit. Moreover, governmental oppression and injustice have the same effect. It is only in communities where governments are not only

strong but just, that a delicate flower like credit can take root and come to bloom.

Illustration from European history

As a broad illustration of the points that have here been discussed the development of the credit system in England as contrasted with that on the continent of Europe may be briefly alluded to. It has been pointed out that the insular position of Great Britain has left her relatively free from the fear of invasion.[1] For centuries no foreign soldier has put a foot on her soil. This freedom from an anxiety that has weighed more or less heavily on all the nations of the continent has stimulated a sense of security that has been of great moment in the development of the system of credit. Furthermore, her rich deposits of coal and iron enabled Great Britain after the invention of power machinery to take her position as leader in the industrial revolution of the nineteenth century. Her opportunities in this respect were further accentuated by the fact that the other nations of Europe during the French revolutionary and the Napoleonic periods were almost constantly harassed by warfare. While Great Britain was interested and participated in the struggles, its participation took the form of contributions of treasure rather than of men, and thus while Europe was a battlefield in which the best men of the continental nations were being offered as sacrifices, England kept her men busily engaged in the process of wealth production at home. With the overthrow of Napoleon her supremacy of the seas was undisputed and since that time the maintenance of her navy has tended to preserve at home a comfortable assurance of absolute security. On the continent the situation in this respect has been entirely different. Wars have been frequent and a feeling of doubt and of insecurity has largely prevailed. The vaguest rumors of international difficulties have sufficed at times to stimulate general popular hoarding. The effect of such hoarding on the credit market is, of course, always costly and annoying.

[1] Notwithstanding Zeppelins.

Furthermore the equable climate of most of England is said to account for the Englishman's stolidity and evenness of temperament. He is not easily excited or thrown into a panic. He is opposed to sudden or violent changes and has a great respect for precedent and the established order. Political changes have come slowly in England and only at rare intervals have there been serious disturbances. Moreover, as modern governments go that of England has been liberal and democratic. While the law has been strictly enforced it has been impartially enforced. Security, justice, and order have thus for a long time encouraged the Englishman's enterprise and have strengthened his confidence in the future. This enterprise and confidence naturally reacted on the development of the credit system. The English banking system has grown and expanded, until today it stands as the most marvelously complex and efficient system that the world has ever seen. On the continent the situation has been different. The temperament of the continental European is not like that of the Englishman. But, apart from temperament, exhaustive wars, political upheavals, and general economic backwardness have on the continent put serious checks on the development of the credit system. Deposit banking grew up but slowly, and it is still largely confined to the commercial centers. The bank note remains, therefore, the preferred form of bank credit and in view of the strength of habit and tradition it will probably remain so for a considerable time to come.[1]

The demand for the two forms of bank credit is subject to wide fluctuation

In view of the many intricate causes affecting the demand for bank credit considered as a whole as well as the relative distribution of demand between the two forms of that credit, it will readily be seen that this demand is subject to wide variation. The demand varies not only absolutely, but relatively, and the purpose now is to bring this out more clearly and to show that serious consequences may

[1] Strenuous efforts are now being made also in France to stimulate the development of the checking system.

result from such variation unless provision is made to meet it.

It varies from place to place

The demand for bank credit varies absolutely from place to place. This variation is due to the different social conditions that prevail in different communities. Even as regards communities in the same country the differences are greater than is ordinarily supposed. Not only are there usually fundamental economic differences, but the whole point of view differs. But, owing to the persistence of habit and tradition, it is probably safe to say that this place demand, from one year to the next is subject only to slow changes.

It varies also from time to time

Over short periods, however, in a given community there may be considerable variation from time to time. This might easily arise from the exigencies of the normal economic life. Where agriculture is the chief reliance of the people, production is bound to be seasonal. The demand for credit facilities would normally be heavier in the planting and in the harvesting seasons than it would at other times. In the planting season the farmer needs seeds, fertilizer, new implements, and perhaps some stock. For these he has in most cases to depend upon his capacity to borrow. Similarly when the crop is harvested, but before it is sold, the farmer needs funds to pay off the hands, and, perhaps, to settle his account at the store. At other times, however, his exchanges are few and his money needs are light. In industrial and commercial communities, on the other hand, the process of wealth production goes on day in and day out without prolonged interruption. Of course, even in manufacture and in commerce there are marked seasonal differences from one line to another, but in a community with diverse manufacturing and commercial interests these seasonal variations, coming at different periods for different trades, are likely to a considerable extent to offset each other. Hence the demand for credit facilities is apt to be more uniform in a manufacturing or commercial community than in an agricultural community. Making due

allowance for possible offsets, however, absolute day to day uniformity in any community is out of the question. There is always some fluctuation even though the degree be relatively small and the average over an extended period remain almost constant.

Unexpected situations affect demand

Furthermore, there may arise at any time an unusual situation which causes a violent change in the demand for credit facilities. An unexpected catastrophe like a conflagration or a flood may upset completely the ordinary processes of business and may profoundly affect the need for banking facilities. Such disorders must, of course, be regarded as exceptional, and since they ordinarily imply the complete dislocation of the normal life of the community it is necessary all along the line to resort to heroic and unusual methods of readjustment.

The relative demand for notes and deposits varies

Within the limits imposed by absolute demand for bank credit in any community there is also an important variation in the relative demand for the two forms of that credit. That is to say, there is no uniform apportionment of the demand as a whole between deposits and notes. A change in this relative demand may proceed from basic changes in the economic life of the community, or from not uncommon changes in the disposition that is to be made of the borrowed funds. At one time for example funds may be borrowed in order to purchase raw material, at another time to pay wages. The funds for the raw material would probably be wanted in the form of deposits, while those for the wages would be wanted in the form of notes.

Fluctuations in confidence may cause changes

Changes may arise also as a result of fluctuations in general confidence. Like other socio-psychological phenomena confidence is involved, more or less mysterious, and uncertain. A hasty word may shake it and a baseless rumor destroy it. Yet the whole system of credit depends upon its preservation, and the height to which that system can develop is limited by the degree and scope of this underlying confidence.

A falling off in confidence lessens the acceptability of the check as an instrument of exchange and usually involves an increase in the demand for media of more general acceptability. Such a decline in confidence may grow out of a mistrust of individuals or out of doubt concerning the general business situation. Sometimes, for example, disquieting disclosures are made concerning important individuals who have widespread and ramified interests. Grave neglect of responsibilities may be shown, or mismanagement or dishonesty may be alleged. Disclosures of such a nature are almost bound to breed an infectious disquietude which may ultimately result in complete destruction of confidence. Thus some superficial observers charged ex-President Roosevelt with the responsibility for the panic of 1907, because of his campaign against corporation evils. Such a charge could not, of course, be substantiated, but the mere fact that it was raised illustrates the point to which allusion is here made. Similarly if the general outlook is unpromising, if business seems to be falling off, or if war clouds are hovering on the horizon, confidence begins to wane. People are a little afraid of trusting each other too much and in general the serviceability of credit diminishes. Hand to hand money then seems safer than checks and similar instruments. As a general proposition it may therefore be presumed to hold good that a decline in confidence carries with it some degree of shifting of demand from deposits to notes or to other forms of hand to hand money.

A destruction of confidence would imply the destruction of all bank credit

In normal times the confidence underlying credit is in a state of flux. It tends first in one direction and then in another according to the shifting influences that are constantly playing upon it. Sometimes, however, the disquieting factors are so overwhelming that an almost complete destruction of confidence results. If the prostration of confidence is so complete that it involves the confidence in the banks themselves then the notes of the banks may lose whatever acceptability they otherwise enjoy, and the

whole surviving demand for a circulating medium and for a store of value may be thrown on gold or on the other forms of lawful money assumed to be equivalent to gold. Ordinarily, however, the shifting of demand is rarely so complete. There may be some readjustment all along the line but it is only isolated banks that suffer a complete loss of confidence.

Inability to meet changing demands is a serious thing

Inability to meet an expanding demand or impediments in the way of issue of either form of bank credit may entail serious consequences. For those desiring credit in any form and unable to obtain it the situation is alarming. The normal conduct of their business may depend upon obtaining bank accommodation of an acceptable form. Stringency in the market for such accommodation is, therefore, bound to be costly and a source of anxiety.

Stringency unsettles business

Reference has frequently been made in the previous discussion to the fact that modern business depends vitally upon the use of credit. There are few business men who are not recurrently dependent upon the banks for advances. The charge for such advances in the form of the "discount rate" is one of the expenses of production and as such every business man likes to have it as low as possible. Stringency in the money market, however—as in the case of any other market—tends to raise the price paid, namely, the discount or interest rate. Necessitous individuals, pushed for funds, are forced to liquidate holdings of investments or of other forms of wealth at whatever terms can be obtained. Enforced liquidation of this kind may or may not be a good thing, but the point is that if it be sufficiently widespread, prices all along the line will tend downward. Falling prices, however, are the business man's bugbear. They make him skeptical about the market for his goods and discourage him from attempting to enlarge his output. If the stringency be of great severity the forced liquidation and the ensuing timidity and alarm may undermine general confidence and may pave the way for a disastrous crisis. Stringency in the money market

is thus no minor matter. It is always accompanied by higher money rates and by declining prices, and, if it becomes acute, may result in panic.

Impediments in the way of the inter-transformability of the two forms of bank credit may have a similar effect. As a practical matter the transformation of note credit into deposit credit involves no difficulty. The notes representing the more generally acceptable medium can easily be converted into the less generally acceptable form through the simple process of depositing. There has been no occasion for the public authorities to step in and interfere with this process. The transformation of deposits into notes, however, is a different matter. For reasons sufficiently discussed in an earlier chapter the state has almost everywhere thrown its protecting arm around the noteholder, and the particular measures of protection employed have usually involved considerable restriction of the right freely to issue notes. But inability to issue notes when the demand for them increases tends to bring about a condition of stringency.

Impediments in the way of note-issue have similar effects

An increase in the demand for hand to hand money is first indicated by a withdrawal of such money from the banks in the neighborhood where the increase in demand originates. It may thence be transmitted to banks in other neighborhoods. If the banks concerned may meet the increased demand through an enlarged issue of their notes the general credit situation, as far as they are concerned, remains the same as before. Other things being equal, as was shown in a previous chapter, it is, at a given moment, virtually a matter of indifference to a bank, which of the two possible forms its credit may take. But if it be impossible for the banks to increase note issue, and thus to transform deposits into notes, then the only alternative that presents itself is the payment of "lawful money" drawn from the reserves.

The money issued by the government and available by law for reserve purposes is at any given moment being

used in one of three ways. It may be used in transacting exchanges; it may be used in the pockets of the people and in the tills of storekeepers as a store of value, or it may be found in the vaults of banks or similar institutions as a reserve for credit. The last named use, notwithstanding its great economy, is, however, subservient to the other two. It is a residual use, for only such money not wanted as a medium of exchange or as a store of value flows into the banks for reserve purposes. In the same way, in any necessary readjustment between these uses, the credit use must give way to the other two. The success of the whole credit system depends upon maintaining this subserviency,—namely, upon meeting with lawful money all obligations to pay this money when such obligations are presented for payment. When, therefore, there arises an increased demand for hand to hand money, as normally evidenced by a withdrawal of bank deposits, and when it is impossible for banks to meet this demand with an increased issue of their own notes, there is no alternative for them but to draw on the cash reserves in their vaults.

Inability to issue notes when needed throws the demand on reserve money

The depletion of reserves, however, carries with it a necessary curtailment of credit. It was shown in a previous chapter that a dollar added to the reserves adds from two up to ten dollars to the bank's loanable resources. Similarly, every dollar withdrawn from reserves necessitates a corresponding contraction of such resources. In the face of withdrawals of cash the banker is forced to call in loans subject to call; maturing loans are not renewed and applications for new advances are severely discouraged. In other words a stringency in the money market is brought about, and, as described above, discount rates advance, liquidation is forced, prices drop, and even panic may ensue.

Depletion of reserves necessitates curtailment of credit

Panics are, of course, both directly and indirectly costly. The very word is the antithesis of the confidence underlying the credit upon which modern business is so largely dependent. The prostration of confidence and credit today

Panics and periods of stringency are costly

means as well a prostration of business. Hence there usually follows in the wake of a panic a more or less prolonged period of business depression. Wealth production is curtailed, hardship and misery are endured, and only after a considerable lapse of time is confidence renewed and courage restored. The big cost to society is made up not so much of wealth destroyed, because there is no necessary destruction of wealth in the severest panic, but rather of the wealth that might have been, but was not, produced. But when closely regarded every stringency bears all the earmarks of a full-fledged panic. The difference between the two, while large, is as far as effects are concerned, simply a difference in degree. Every stringency carries with it the necessity of some liquidation and some readjustment, and during such a stringency optimism is in some degree restrained and production in some measure curtailed. Were it possible to provide against them, it would be eminently desirable to avoid both stringencies and panics.

It may be concluded, therefore, that bank credit will function most efficiently when provision has been made for a reasonable expansion of both forms and for a ready transformation of one form into another.

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CHAPTER V

ELASTICITY OF BANK CREDIT: OVEREXPANSION AND CONTRACTION

Over-expansion must also be guarded against

While on the one hand it is desirable to guard against the Scylla of stringency, on the other there is a Charybdis that is equally threatening, namely, overexpansion. Overexpansion is dangerous because it may lead to an inflation of prices, to an unproductive investment of capital and to a weakening of reserves to such an extent that the whole credit superstructure is undermined.

The acceptability of credit depends upon convertibility

The acceptability of bank credit as a substitute for money depends upon its instant convertibility into money. As was previously shown, the preservation of confidence in this convertibility is contingent upon the maintenance of adequate cash reserves. The potency of any given sum of cash reserves depends obviously on the ratio of such cash to the total liabilities resting upon it. This ratio is usually expressed in rates per centum. When in any case the percentage of cash reserves held by a bank against its demand liabilities falls below the point at which the reserves suffice to guarantee the convertibility of the liabilities, the bank is said to be overextended. The same thing may be true of the community as a whole, that is to say, there may be a general *overextension or overexpansion of* credit.

This depends upon cash reserves

Overexpansion involves also the question of security

Overexpansion involves also the question of the security lying behind credit. Cash reserves guarantee the immediate convertibility of credit, but its solidity as a whole depends upon the other assets besides cash upon which it is based. For demand liabilities these assets must be of the most liquid character, of a character, namely, that implies

self-liquidation or that involves ready salability. Moreover, the underlying assets must be sound. The liquidation of the obligations payable to the bank as they mature from day to day, is essential to the preservation of the bank's own credit. Any extensive collapse of the underlying individual credit implies an almost inevitable breakdown of the superimposed bank credit. Where individual credit is buttressed by collateral security, the security must not only be readily salable but also salable at a price which will amply cover the credit extended. The process of extending credit by a bank involves, as a practical matter, making available for exchange purposes wealth yet to be produced or existing wealth offered as collateral. Hence there is always the possibility of extending more credit than is actually warranted by such wealth. Any excess must be made good. It may ultimately be made good by the debtor out of other assets, or it may be made good by the bank itself out of profits or out of capital and surplus, but in the first instance because of the immediate guarantee function of the reserves excessive extension of credit represents an additional burden on reserves.

Inflation of prices a danger involved in over-expansion

One of the dangers involved in overexpansion, it was said above, is the inflation of prices. Professor Laughlin[1] maintains that "normal" credit does not influence prices at all, but he, together with almost all other authorities, admits the stimulating effect of excessive, or what he calls "abnormal" credit. Convertible credit in the control of a prospective purchaser of goods would seem to be as potent as gold itself in affecting the demand for the goods purchased. By means of credit advances on certain goods as security, these goods are made the source of a demand for other goods. This demand, in the absence of credit, could not have arisen unless the goods acting as a security had first been sold, or unless they were offered in direct barter for the goods purchased. Similarly, the extension of credit without any security but based only on expected

[1] J. L. Laughlin, *The Principles of Money*, ch. 4.

production in the future has the effect of adding the future wealth to the wealth which is the source of present demand. It is, of course, true that demand and supply, considered in the large, are simply obverse sides of the same thing, but it is also true that the "supply" here involved is not the potential but rather the active supply, namely, that which is directly involved in the process of exchanging. Wealth hidden or buried cannot be a source of demand for other wealth. When, however, wealth is bartered or sold, or when credit is extended on it, it becomes a source of demand. Hence any extension of credit tends to intensify demand for the goods to the purchase of which such credit is directed, and, unless there is a corresponding offset on :he supply side, the normal outcome of the increased de- nand is an upward tilt in the price of the goods con- erned. The effect on general prices will depend upon the rolume of the new credit and upon how widely it is diffused.

Prices do not change uniformly or instantaneously

An instantaneous and uniform increase of prices all long the line, if such a thing were conceivable, would not eem to be a circumstance of particular importance. If all rices were exactly doubled and if all money incomes were imilarly doubled it would apparently make little differ- nce to anyone. But the difficulty in practice is that it s impossible to get an instantaneous and uniform price eadjustment. Price readjustments come about only hrough involved changes in the buying and selling oper- tions actually going on in society, and a change in the rice of a single commodity carries with it, theoretically, ot only a realignment of wants, but also a consequent eordering of the whole distribution of the social divi- end. When credit is expanded the goods that increase ı price are those which first feel the impact of the new edit demand. These goods are usually the commodities hich, like stocks, wheat, cotton, *etc.*, are dealt in on the ganized speculative markets. Such markets are more irectly and intimately connected with the money or credit arket than are others, and changes in the credit situa-

tion are consequently first reflected there. Then, depending upon the strength of the original influence and upon the readjustments that are induced, the changes in price tend to be carried, like the concentric waves on the surface of the water, to the outermost margin of the interrelated economic interests.

Price changes may suggest unwarranted conclusions

This protracted and uneven readjustment of prices, apart from final general inflation, may itself involve certain serious consequences. In the first place, an increase in the price of a given commodity may be interpreted by those engaged in its production as an indication of an increased demand for such commodity, and such producers are accordingly led to take advantage of the supposed increase in demand by increasing their output. In the final outcome, however, there may not as a matter of fact be such an increase in demand, indeed there may even be a falling off. To the extent that there is increased production to meet a falsely conceived increase in demand there is maladjustment of production that can have only unfortunate results not merely for those immediately concerned but finally also for all society.

And also readjustments in real income

Another source of possible difficulty is to be found in the fact that some incomes are fixed or are slow to respond to changes in price. A rise in prices is a real hardship to holders of bonds and similar securities bringing in a fixed money return, because, with rising prices, fewer and fewer things can be purchased for a fixed money sum. Then it is usually conceded that wages respond but slowly to changes in the price level, and, in so far as that is the case, it means that with rising prices of the goods purchased by laborers, the "real wages" of labor tend to diminish. Similarly, a rise in prices may involve a scaling down of debts, as far as real command of goods is concerned, and this is held to be an injustice to creditors.

Inflated prices stimulate speculation

The greatest danger of overexpansion, however, is that inflated prices stimulate unhealthy speculation, which causes capital to be diverted into unproductive channels

and which usually ends with panic and depression. Rising prices have a stimulating effect on all business men. With prices moving upward confidence in the future is greatly strengthened. Output in established enterprises is increased and new ventures are seized upon with avidity. Difficulties are discounted while promise is magnified. In short, rising prices, irrespective of causes, are pretty generally considered to be synonymous with prosperity.

Speculation leads to mis-production

But the confidence that characterizes boom times is not discriminating. It sheds its effulgence on the bad as well as on the good. Ventures that in saner moments would be regarded with circumspection are entered into by otherwise conservative men with uncritical assurance. Credulity seems at such times to displace sober and searching judgment. A fever of speculation sets in. Initiated in first instance, perhaps, by a rise of prices, speculation tends to carry prices still higher, and then feeding on what it creates it grows ever stronger and more violent. Capital is overinvested in many lines and completely misinvested in a few. Obligations are assumed that can never be met. Finally, somewhere in the mutually sustaining threads of the complicated credit network, a break occurs. Some big firm fails. The credit structure crumbles. Prices tumble headlong. Economic production comes almost to a standstill. Thousands are ruined. Optimism is engulfed in gloom. Then little by little confidence is restored, the outlook becomes favorable and the situation again approaches normal. The price that is paid for such a wholesome chastening is, however, incalculable. The chastening should never be necessary.

Expansion of credit ought to be controlled

But how to avoid it? There is the rub. Speculative fevers have come and have gone in more or less frequent if not regular cycles in the past.[1] Numerous theories have been advanced to explain them, and equally numerous proposals for preventing them have been advocated. No

[1] For the most scholarly discussion of business cycles that is now available see Wesley C. Mitchell's *Business Cycles*.

attempt is going to be made in this place to expound another theory or to advocate another remedy. But what it does seem necessary to say is that, to the extent that it is possible to make provision against it, undue expansion of credit should not be added to the elements which, when appearing concurrently, provide the congenial environment for the development of speculative manias.

There is, however, no divine intelligence to which appeal can be made to ascertain when undue expansion has set in. Purely human agencies have to be relied upon, and these are at best never certain or infallible. The accepted test, however, so far as the banks are concerned, is the relation between liabilities and reserves. Experience teaches what the normal relation ought to be. For individual banks or for particular communities there may be, as will be shown presently, an automatic checking up. But for the nation as a whole, there ought to be somewhere an agency strong enough to hold the situation to the normal, when, considering all the circumstances involved at a given moment, there seems to be a tendency toward departure from normal in the direction of credit inflation.

Relative inflation may result from inadequate redemption

Inflation may, however, develop passively as well as actively. That is to say, if credit is not promptly withdrawn from use as the need for it declines a relative excess may remain in existence even though such excess was not in first instance intentionally created. Bank credit can originally be expanded only if there is a demand for it. The demand for it, as has been seen, is a complicated matter of confidence, business outlook, *etc.* The bank may stimulate demand by offering accommodation at low rates, but before general expansion can take place the other circumstances involved must also be favorable. In times of shattered confidence the lowest rates offer little inducement to borrowers. But when attendant circumstances are favorable it is possible for the bank to increase its obligations to a point which involves dangerous inflation. On the other hand, it has already been explained that demand for

bank credit does not remain constant, that there are normal increases in demand and normal decreases. It is understood also that the expansion of bank credit to meet an increase in demand is, leaving possible legal restrictions out of account, within the bank's control. Contraction of bank credit when demand falls off, however, is not necessarily within the bank's control. Contraction is possible only when those who hold the instruments by means of which bank credit is brought into use return them to the bank.

The return of bank checks and bank notes—which are the instruments by means of which bank credit is brought into actual service—may be effected in several ways. They may be redeemed in cash, they may be used to liquidate an obligation owing to the bank itself, or they may simply be deposited for credit. Whichever of these expedients may be employed the fact remains that the bank credit represented by the instruments involved has been withdrawn from use, or, broadly speaking, has been "redeemed."

Gold may be exported

On any given level of prices the use of credit beyond the need for it as an addition to the available media of exchange carries with it the impounding in reserves of the money which the excessive credit displaces. But money will not remain so impounded. Where there is not a sufficient demand for credit to permit bankers profitably to use their funds in the home market, they will, through operations in the foreign exchange market subsequently to be explained, transfer such funds to the markets where higher rates are obtainable. If the influence is strong enough the result is an exportation of gold.

Forcing out gold is a precarious matter

Such a loss of gold is, however, a serious matter. Assuming that the country had only its normal proportion to begin with, the displacement of gold by credit carries with it a weakening of the ultimate reserves for all credit. Moreover, it is a weakening that is more hazardous than that which results from positive expansion because in the latter

case reserves can be strengthened by a simple contraction of liabilities whereas, where gold has been exported, reserves can be restored to normal only through reimportation.

Credit operations may be interfered with

After a certain point has been reached a weakening of reserves necessitates a halt in the further extension of credit by the banks. This might appear to be desirable, but should an increase in demand be felt, necessitous borrowers would find it difficult to obtain accommodation. Holders of bank liabilities might also become apprehensive about the continued convertibility of their claims, and might therefore demand that they be redeemed in cash, thus further weakening reserves. Contraction and liquidation may be forced in this way, but it is not a normal contraction. Industry is interfered with, and, should a general loss of confidence develop, the effect is likely to be cumulative and a situation bordering on panic may result.

Rapid redemption must be facilitated

There are thus two kinds of overexpansion. The most virulent is that which grows out of a rapid multiplication of credit facilities and which carries with it the overvaluation of goods in terms of money. The other is passive and grows out of the failure of credit to contract when demand falls off. This carries with it an undervaluation of money in terms of goods. The difference between them is that in the first case the price level will necessarily be high while in the second case an unduly high price level is not a necessary consequence. But there are the other consequences which in both cases are positive and serious. Hence, just as active overexpansion is to be guarded against by restraining credit, provision must be made against passive overexpansion through facilities permitting rapid redemption.

The nature of the check leads to speedy redemption

A careful examination of the nature of the deposit and of the check which is based upon it, will show that speedy redemption may, in this form of bank credit, be expected as a matter of course.

In the first place it may be pointed out that there is a

strong incentive to the owner of a check either to present it for payment to the bank on which it is drawn or to deposit it in his own bank. The reason for this is that until the check is so presented the holder can never be sure of its validity. The drawer may not have an account; or, if he has, he may have overdrawn it and other of his checks presented first may get an unwarranted preference. Then too there may be some doubt about the bank itself, although this is not likely in normal times to exercise any considerable influence. But certainly a check for an uneven amount, transferable only by indorsement is not, as was previously explained, nearly so convenient a medium for further payment as is the easily divided deposit-balance which the deposited check serves to strengthen. Finally, it may be pointed out that the law requires the presentation of the check for payment within a reasonably short time after it has been received, and the owner jeopardizes his legal claim against the maker if he holds the check too long. Experience proves that all these things taken together act as a strong stimulus to the individual holder of a check to get it back for collection as soon as he can.

There is a strong incentive to the payee to deposit it

In the second place it may be mentioned that there is an equally strong incentive for banks receiving as deposits checks on other banks to present such checks for collection within the shortest possible period. Here again the impelling reasons are not unlike those operative in the case of the individual. The receiving bank knows in the first place that a good many checks drawn by its own depositors will be presented for collection by other banks. The more checks that the receiving bank can itself present on such other banks the more completely can it offset their claims. Here too the law requires reasonably rapid collection and the depositor may hold his bank responsible if it fails with reasonable promptness to collect the checks deposited with it. Furthermore, the failure to present checks may injure the receiving bank's position as a creditor. Each bank knows, whatever be the circumstances in a particular case,

There is also a strong incentive to the bank to present checks for collection

that all other banks will present all their claims against a given bank as soon as possible. Any withholding of claims, irrespective of the motives involved, would constitute a sacrifice not in favor of the bank liable for the claims withheld but rather in favor of the other creditor banks. The bank withholding some of its claims would thus strengthen other creditor banks at its own expense. All things considered, therefore, there is a powerful incentive to banks to present all checks for collection at the earliest possible moment.

Organized clearing expedites redemption

When there is a regular clearing house, with frequent clearings, the process of collecting is greatly expedited. Each bank sends to the regular clearings as many items against all the other banks as it can possibly gather together. Such items are recorded as credits on the clearing sheet. But to the banks from whom payment is due such items constitute debits. Hence in a particular case a bank will have a series of credits made up of the items *collectible from* the other banks and a series of debits made up of the items *payable to* the other banks. Payment in cash or its equivalent is made only for the difference between credits and debits. The result is that the process of collection is not only expedited but it is also stimulated.

Rapid redemption exerts a restraining influence on expansion by an individual bank

Here may be indicated the important fact that speedy redemption at the clearing house exerts a very wholesome restraining influence on the individual bank that manifests a tendency to expand its credit beyond that deemed wise by the other banks in the system. This influence arises from the fact that an expansion of loans in the shape of deposits is normally followed by an increase in the absolute number and total amount of checks drawn by a bank's depositors. As these checks largely get into the hands of other banks, an increase in their number and total amount means for the bank concerned an increase on the debit side at the clearing house. If for any extended period a bank has considerable debit balances to meet, its reserves will eventually be depleted to the point where the only alterna-

tive to disaster will be contraction. Hence the necessity of regularly meeting clearing house debit balances acts as an automatic check on individual banks against over-expansion.

It exercises a similar effect on the banks of a community

But what happens if all the members of a clearing house overexpand their credit in the shape of deposits? In such a case of general expansion there is no check as far as the individual community is concerned. The expansion of a given bank results, it is true, in a larger volume of debit items at the clearing house, but, if the expansion is general, a particular bank will in all probability receive as deposits a larger volume of checks on the other clearing house banks, and these checks act as an offset to its own debits. While expansion for a single bank tends to increase debits at the clearing house, *general* expansion increases credits as well. Under general expansion the balance may remain practically undisturbed and the net result may be simply an enlarged business on a smaller margin of reserve.

In so far, however, as the banks of one community have a considerable volume of dealings with banks in other communities inter-community clearings have a restraining influence on a whole community in much the same way that intra-community clearings influence the individual bank. The more thoroughly organized the domestic system of clearings is the less likely is there to be any purely local overexpansion, because local overexpansion is bound to result for the community concerned in an increase in debits in inter-community relations. The outcome of this is sure to be in turn depletion of reserves and a consequent necessity for contraction.

In international credit relations some control is necessary

But, proceeding further, suppose that there be national overexpansion—as there has been several times in the United States—what restraints are provided? International clearings undoubtedly provide a final check, but the greater friction involved in the exchanges between nations as compared with the exchanges between domestic

communities renders the operation of this check uncertain and precarious. The flow of funds is not easy enough or in sufficient volume to check national overexpansion until a point is reached where, through loss of gold, the whole national credit superstructure is threatened with collapse. In order to check national overexpansion before credit is strained to the breaking point some reliance other than that of international clearings must be sought.

The nature of the bank note is not such as to stimulate redemption

Turning now to a consideration of the bank note from the point of view of redemption it will be found that the nature of the bank note is such as to retard rather than to stimulate redemption. As already explained there are three ways in which the credit represented by the bank note may be liquidated. The holder of the note may present it to the issuing bank or to its responsible agent for redemption in standard or other "lawful" money. Or, secondly, if the holder of the note be himself a debtor of the issuing or of another bank he may use the note in liquidating his own indebtedness. Thirdly, the holder of the note may be a bank depositor and may utilize the note in increasing his deposit. These may now be separately considered.

There is little inducement to the holder to present the note for redemption

What inducement is there for the holder of a bank note, not himself a bank debtor or depositor, to present the note for redemption in standard or lawful money? Unlike the check resting on a bank deposit the bank note is the embodied promise of the bank itself to pay, and to the extent that the bank is more widely and more favorably known than are the individual depositors the note is more secure than the check, and it enjoys in consequence a more general acceptability. Hence there is little incentive from the point of view of security for the noteholder to redeem the note. Furthermore bank notes are usually issued in convenient denominations of regular multiples of the standard unit, and they become therefore just as convenient for exchange purposes as standard money itself. Where paper money is preferred to coins they may be

even more convenient. There would be, in consequence, little reason from the point of view of convenience to insist upon redemption. Consequently, it may be said that, since for the purpose of transacting exchanges or for storing value bank notes are generally as satisfactory as standard or lawful money, there seems to be little reason to suppose that noteholders not bank debtors or depositors will present their notes for redemption.

Or to select it to pay a debt to the bank

It may next be supposed, however, that the noteholder is himself a debtor of the bank and the question can then be asked what likelihood is there of the credit represented by the note being redeemed? Here, of course, the chances of redemption are greater. But here too it must be recognized that not all noteholders are bank debtors and that there is no special inducement to the noteholder to use the bank notes rather than other forms of money or credit in liquidating indebtedness. If he be not a bank depositor he will in all likelihood simply count out the necessary sum from whatever funds first come under his hand. The average individual, especially if there be government notes as well as bank notes, does not discriminate between the different kinds of money. The redemption of the bank note in this case is then a matter of chance. It will all depend upon what proportion of the total general currency supply the bank note issue constitutes.

Or to select it to make a deposit

The third possibility concerned the use of the bank note in making a deposit. If the noteholder be a bank depositor the probability of redemption is greater than in the previous case. But here too it must be recalled that bank notes do not only get into the hands of depositors, and, further, that even bank depositors need a certain amount of hand to hand currency. According to the ratio of bank currency to total currency supply, therefore, the bank note is just as likely to be retained for pocket or till money purposes as is other money. Moreover, as a corollary it may be said that, according to the ratio referred to above, other forms of money are just as likely to be used in making cash de-

The inducement to the banks to offer each other's notes for redemption depends upon the legal position of the notes

posits as are bank notes. Complications must be taken into account in connection with the second and third possibilities here discussed. The noteholder who is a debtor of or a depositor in a bank is not necessarily—and in most cases is not usually—a debtor of or a depositor in the bank issuing the notes he holds. In other words even where bank notes are paid into banks they are not necessarily paid directly into the issuing banks. Whether the credit represented by the notes will be redeemed or not when the notes are paid into banks other than the issuing bank depends upon the legal position of the notes. If the receiving banks may again pay out the notes, or if the notes may be considered a part of the lawful reserves, there is no incentive to the banks to collect or "clear" notes as they do checks.

Pressure of some kind must be brought to bear on the notes

Taking notes as a whole, therefore, it will probably be conceded that their nature is not such as to warrant the hope of speedy redemption. Pressure of some kind must be brought to bear on them if their overexpansion is to be guarded against. As here too overexpansion is a question of the relation between reserves and liabilities this pressure may be exerted in several ways, namely by expediting redemption, by limiting issue or by regulating reserves. As the best means to be employed in this connection depends upon a variety of considerations affecting the organization of the banking system as a whole the further discussion of the matter may profitably be deferred.

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CHAPTER VI

DOMESTIC CLEARINGS AND EXCHANGE

The process of clearing involves a balancing of reciprocal liabilities with ultimate delivery in cash or its equivalent only of differences. If reciprocal claims of any kind are to be brought together for the purpose of offset, some kind of machinery for the realization of this object must be provided. Those possessing or holding reciprocal claims may come together in person and thus by agreement offset their respective claims, but where the claimants cannot come together personally some agency must be provided to act as an intermediary between them. Moreover, where the several claimants come together personally any differences obtaining between their claims can be easily settled with cash or with the delivery of whatever the nature of the claims may require. But if an intermediary must be relied upon in the clearing process such intermediary must either hold proper funds for all whose reciprocal claims appear in the clearings, or it must be in position to collect from them any debit balances that may arise. In other words, the process of clearing requires not only a means of bringing together the reciprocal claims, but also a means of making delivery of whatever the claims may require to cover the amount of possible differences.

Clearing involves the offset of reciprocal liabilities

The reciprocal claims must be brought together

Clearing is applicable to all kinds of transactions involving reciprocal liabilities. Thus on the New York Stock Exchange there is a clearing house which handles all the transactions of the brokers for the day. In the Stock Exchange Clearing House the broker makes or accepts delivery only of the difference between sales and purchases of any particular stock, and in cash only of the difference

The process is widely applicable

between total sales and total purchases. The installation of the clearing system on the stock exchange greatly extended the possibilities of the brokers' business. In like manner the English railways maintain a clearing house to handle the numerous reciprocal claims growing out of the transshipment of persons and of freight over their several lines. This has greatly simplified their accounting.

Claims involved in bank clearings are money claims

In the banking field reciprocal claims arise among the banks through the depositing by clients or through the payment by debtors of checks, drafts, *etc.*, and of bank notes drawn on or issued by banks other than those in or to which the deposits or the payments are made. The reciprocal claims among banks are, of course, money claims, and the settlement of differences arising between such claims would thus require the payment of money or of that which might constitute a satisfactory alternative.

Bank clearings are local, domestic-intercommunity and international

Clearing in the banking field may be classified as local, domestic-intercommunity and international. These may be considered in turn, although the subject of international clearing is in some particulars so distinctive that it will be independently discussed in the following chapter.

Local clearings

Local clearings concern the offsetting of reciprocal claims by banks in the same community. This is the more familiar type of clearing handled by clearing houses in all our large cities. Most of the claims handled in local clearings grow out of local business relations. In cities in the United States, for example, a considerable proportion of the total business grows out of transactions between the residents of the city. The payments back and forth that are made as a result of such transactions, in so far as they are made through banking instrumentalities, appear to a considerable extent in the bank clearings. Some of the claims may, however, arise outside and may appear in the local clearings as a result of transfer.

The "clearing house"

Local clearings, as already indicated, are today handled in the main through organized institutions known as "clearing houses." This system is practically one of

directly bringing reciprocal claimants together. In the settlement of differences payments may be directly made by the ultimate debtor or indirectly through an officer or department of the clearing house. Moreover, such payments may be in actual cash, as in New York, or simply in drafts on other centers or institutions. A good many interior towns in the United States employ drafts on New York. English banks in London use Bank of England cheques. In Boston, where clearing is handled through the federal reserve bank, checks drawn on the reserve bank are depended upon. In some cases also systems of loans of one kind or another have been devised.

The nature of the claims handled in a local clearing house will depend upon the rules of the particular institution. Where there are many clearing houses, as in the United States, numerous differences appear in such rules. The bulk of the claims, however, arise through the depositing of checks which, as already indicated, constitute in growing proportion the currency of business.[1]

Domestic-intercommunity clearings

Domestic-intercommunity clearings concern the offsetting of reciprocal claims held against each other by banks in different communities of the same country. The factor of distance and the lack of formal organization naturally add elements of complication not found in purely local clearings, although in both cases the general object aimed at is the same.

The basis of intercommunity claims is found in individual business relations

The basis of these intercommunity bank claims is the great variety of economic transactions arising between individuals in different communities. The volume of such claims has steadily increased with growing division of labor and with expanding trade. The general trend in the development of the economic life of a country like the United States has been toward territorial specialization, and this has greatly increased community interdependence with a

[1] The subject of clearing houses is fully and authoritatively discussed in H. J. Cannon's *Clearing Houses*, Publications of the National Monetary Commission (U. S.).

consequent development of intercommunity trade. This trade, moreover, has relied increasingly on banking means of payment, and the outcome has been, therefore, a rapid expansion of intercommunity bank claims.

Intercommunity business gives rise to "credits" and to "debits"

It is hardly necessary in this place to set forth at length what is comprised in modern trade between different localities. Suffice it to say that it involves practically the same elements that are usually referred to in the analysis of international trade. The most obvious element is the purchase and sale of commodities. Next would come the purchase and sale of securities. As a third broad class would come the services rendered for salaries and wages, while in a fourth category could be included loans of all kinds. Of course, at any given moment the situation as between any given community and other communities is likely to be very complex. Some residents of the community are purchasing goods outside while others are selling, some are acquiring securities while others are disposing of them, some are rendering services while others are under obligation for services rendered, and, finally, some are lending to those outside while others are borrowing. But if such a complex situation could at any given moment be completely canvassed it would be found that all the individual operations could be classified under one of two heads, namely, "credits" or "debits." The credits underlie the claims held by the banks of a given community against banks in other communities. The debits, on the other hand, underlie in like manner the claims held by outside banks against the banks of the community under consideration.

The claims have different sources

While the basis of intercommunity bank claims is to be found in the economic transactions arising between individuals in different communities they do not all originate in exactly the same way. It is possible for example for a depositor in a bank in a given community to deposit bank notes obtained in the course of the day's business but originally issued by banks elsewhere. To the amount of such notes the bank receiving them would then have a claim

Bank notes, checks, etc.

against the banks of issue. But the bulk of the claims arise in connection with checks, promissory notes, drafts, and bills of exchange.

Debtor or creditor may take the initiative

Considering a single transaction between residents of different communities there are several ways in which as far as the principals are concerned, the obligation arising between them may be settled. Assuming the payment to be due, the debtor may draw a check on his own bank and remit to his creditor in the distant community. Or the debtor may go to his bank and obtain from it a draft drawn in favor of the creditor on a bank in the creditor's community or on a bank in such other community as may for the purpose be acceptable to the creditor. In these two cases the debtor is assumed to take initiative. It is possible, however, that the initiative be taken by the creditor. He may himself draw a draft on the debtor for payment, which draft may be sent direct or which may, through indorsement, be transferred by the creditor to his bank, which thereupon undertakes to collect it for him. These drafts are generally known as domestic bills of exchange, although less generally so in the United States than in Europe. Or it is possible that the creditor deposit for collection, before or at maturity, a promissory note or similar instrument given by the debtor. Of course, the bill of exchange or the promissory note accepted or given by an individual, is not of itself a claim against a bank.

Instruments already due alone affect the immediate situation

It yields a claim against a bank only when the debtor pays it with cash or with a check. The amount involved then becomes a claim by the creditor's bank against the debtor's bank, or at any rate against the bank which effected the collection. Moreover while such drafts, bills of exchange, *etc.*, may be immediately payable, as with "demand" or "sight bills," or while they may be payable only after a lapse of time, as with "time bills" it is, of course, only the demand or sight and the matured time instruments which affect the immediate situation.

The actual clearance of reciprocal intercommunity bank

Two questions are involved in inter-community clearings

claims involves two questions: 1. What method is employed for bringing together the reciprocal claims? 2. How are the final balances settled?

Claims must be brought together

As already indicated the claims must be brought together either directly or indirectly. Under the direct method some form of organization resembling the clearing house in local clearings would be necessary. Here the balances alone would be remitted for. So far as is known no such formal organization has anywhere been attempted, the great difficulty in the way being the necessity for verifying in first instance the validity of the claim. A bank does not, for example, wish to be charged for a check not validly drawn by its depositor. Under the indirect method all items are sent to their ultimate destination for collection, and remittance in satisfactory form is sent. Here clearing works out indirectly because there is no conscious balancing of debits with credits. Yet through the employment of forms of remittance which involve simply a transfer of the original claims to a common intermediary, the great end of clearing, namely, the offsetting of debits with credits, is more or less completely achieved.

Different kinds of machinery are employed

The machinery employed for transmitting claims in inter-community clearings varies from country to country and in the United States even from city to city. Each bank holding claims against banks in other communities may itself undertake to send out for collection the instruments which embody such claims. On the other hand the local clearing house may undertake to make all foreign collections for its member banks. Again under a centralized banking system the central banks may be relied upon. Thus under our Federal Reserve System the reserve banks are to some extent constituting themselves collection agencies for their member banks. The machinery employed, while representing an important question of economy of procedure, is not, however, of great significance in connection with the achievement of the ultimate object of clearing.

The second question referred to above (namely, how are the final balances settled?) is the more important. Inter-community bank claims are, of course, claims to cash. But the whole object of clearing is to eliminate the expensive necessity of remitting cash for each claim. Yet under the indirect system of bringing debits and credits together something must be remitted which will directly or indirectly serve the bank equally as well as cash in the sphere where cash functions, namely, in the reserves. For the right to demand cash in one place there may be substituted the right to demand cash elsewhere. If a bank itself carries a balance with another bank outside of its own community it may arrange to make and to receive payments through such an account. The balance itself, being a demand claim, virtually constitutes a part of the bank's reserve, whether such balance be legally available for reserve purposes or not. The effect of excluding from lawful reserves the balances carried by banks with other banks is simply to raise the percentage of prescribed reserves. In last analysis, therefore, the whole question of clearances between banks in *different communities of a given country* depends upon the system of reserves.

Final balances must also be paid

This is largely a question of the system of reserves

At this point reference ought to be made to the fact that the claims arising from the depositing or the payment of bank notes are not ordinarily handled in the same way as are those arising from checks and kindred instruments. Much depends upon the general character of the bank notes. If a bank note is legal tender or lawful money for reserve purposes for banks other than the bank or banks of issue—even though in essence the bank note represents ultimately only a claim to standard money—it is nevertheless normally as serviceable as standard money itself for all banks which may include it in reserves. Hence there is no occasion for offsetting claims so founded. Thus in Europe where there are central banks of issue whose notes are considered satisfactory for reserve purposes little cash outside of such notes is kept in the vaults of the other

Claims based on bank notes are not necessarily handled like other claims

The nature of the bank note is of importance

banks. But if a bank note be not available for reserve purposes it may be returned to the bank of issue for collection or for credit, or it may simply be held temporarily as till money and again paid out. Apart from possible legal restrictions (as in the case of our Federal Reserve Banks) the choice between these two alternatives will depend upon a number of circumstances. First there would arise the question, Is the bank holding another bank's note itself a bank of issue? If so, it will have no desire to prolong at its own expense the life of the note of another bank. It will choose rather to pay out its own notes and to return for collection the notes of other banks. Another circumstance that would be taken into account would be the immediate demand for hand to hand money. If that demand were great and relatively unexpected a given bank might, irrespective of other considerations, pay out the notes of other banks. The question of expense would also be a factor of some importance. The greater the expense involved in returning notes for redemption the less intense would be the inclination to have them redeemed. Illustrations of the points here referred to can be numerously found in connection with our own national banking system. State banks are practically prohibited from issuing notes through the provision of a 10% federal tax. But in most of the states national bank notes are available for reserve purposes and there is no incentive for the state banks concerned to return national bank notes for redemption. On the other hand national banks may not include each other's notes in their reserves, but time and again they will retain such notes temporarily in their tills in order to meet over-the-counter demands for currency.

Checks, etc., are speedily redeemed

No question of alternatives presents itself, however, in connection with checks and kindred instruments. Their nature, as already indicated, is such as to stimulate prompt redemption. The only question with them is by what means can they be most expeditiously and most economically collected.

It was pointed out above that the form of remittance and the adjustment of final balances in domestic-inter-community clearings is primarily a question of the system of reserves. From this point of view two general systems of reserves may be distinguished, namely, centralized and decentralized. Two general systems of reserves may be considered

Under a system of centralized reserves the major portion of the cash reserves of a country are in the control of some central institution which is directly or indirectly in touch with the local banks. If reserves are centralized it follows of necessity that the balances carried with the central institution by the local banks shall be regarded as equivalent to cash for reserve purposes. If these balances were not so regarded each bank would have to maintain reserves in its own vaults and to that extent centralization would be destroyed. Centralized reserves

Assuming, however, a system of centralized reserves, whatever the actual clearing or collection machinery that may be devised, remittances can be made by debtor banks in the form of drafts on the central bank. The adjustment of intercommuntiy claims is, under such a system, in last analysis simply a matter of bookkeeping. For drafts drawn the debtor banks are debited on the books of the reserve holding authority, while creditor banks are correspondingly credited. As between banks in different communities the net result is simply a shifting of credit to the amount of the net indebtedness, from the balances, collectively considered, of the banks in the debtor communities to the banks in the creditor communities. Adjustment of balances is simple here

The necessity for shipments of cash or currency is, under such a system, obviously reduced to a minimum. Should the banks of a given community be, for a prolonged period, debtors in the domestic exchanges, and should they be unable through loans or advances to strengthen their balances with the central authority, nothing would remain for them but to ship cash withdrawn in some manner from local circulation. In practice, how- Cash shipments only occasional

ever, in countries which have centralized reserves, such a necessity hardly ever arises. On the other hand, the banks of a given community may be substantial creditors in the exchanges and may choose for local reasons to draw down a part of their balances in cash or currency. But in any event the first result of the clearings is simply a shifting of reserve balances, and shipments of currency either to or from the reserve center must be regarded as independent phenomena.

This also suggests another point. Irrespective of clearings currency shipments are not between local communities themselves. They are between the local communities and the reserve center, and all of a given community's dealings with the outside world, in so far as they are handled through the banking system, are reflected in the shifting of its balances on the books of such reserve center.

Decentralized reserves

A system of decentralized reserves is one where the banking reserves are kept mainly in individual banks. Here a line should, perhaps, be drawn between a system made up of relatively few banks having many branches, as in Canada, and a system of many independent local banks as in the United States.

There are two general types to consider here

Under the branch system settlement of balances in intercommunity clearings approximates that under centralized reserves. With relatively few banks and many scattered branches a large number of intercommunity transfers may be made through entries on the books of the parent bank. Here, as under a centralized system, the adjustment is made between communities simply by a process of bookkeeping. But it is obvious that in so far as different banks, rather than branches of the same bank, are involved, a more comprehensive system of clearings and settlement is necessary.

Three broad possibilities under a system of numerous, local, independent banks

Under a system of local independent banks as in the United States, three broad possibilities of settlement in intercommunity clearings may be noted.

1. Where banks in different centers reciprocally carry balances, or where one center holds balances for the other.

2. Where banks in different communities carry balances in a common third center.

3. Where banks in different centers carry balances in independent centers whose banks in turn carry balances in a common center.

Reciprocal balances

Under the system of reciprocal balances the adjustment of reciprocal claims simply reacts on the relation of the balances themselves. Each bank charges the account of or is remitted to by the other for all items chargeable against the other that appear in the course of the day's business.

One center may hold balances for another

Where one center acts as the holder of reserve balances for another, debits and credits are simply brought together on the books of the reserve center. The credit items are entered as they are submitted, while the debit items are charged or are specifically remitted for after their validity has been determined. The net result is a readjustment of the balance on the books of the reserve center.

Currency shipments in the case of mutual balances

Currency will be shipped between centers carrying reciprocal balances when either center wishes to enlarge or to diminish its balance in the other center and when no cheaper expedient presents itself. Other expedients that might be employed are loans raised directly in the center to which otherwise the currency would move, or credits obtained in such center through the instrumentality of other communities.

And in that of one center acting for another

Currency will move in the case of one center holding balances for another, under similar conditions. It will move to the reserve-holding center when the debits of the other community exceed its credits for a more or less extended period, and when loans or credit advances cannot be directly or indirectly arranged in the reserve center. It will also tend to move to the reserve-holding center when the banks in the smaller center wish to increase their balances in the larger center and when funds payable in the reserve-holding center cannot be more economically obtained in other ways. Currency will move from the larger

center to the smaller community when conditions are exactly opposite to those just referred to.

Examples

As examples of the first of the two cases thus far discussed reference may be made to the relations between the banks of New York and Chicago. In these two important centers the larger banks maintain reciprocal balances. Reference may be made next to the larger cities in the United States and to all the little towns surrounding them, as examples of the second case, namely, that of the holding by one center of the reserve balances for other centers. Most of the trade of these smaller towns is with the neighboring larger centers, and even where that is not the case, financing practically all the "foreign" or out-of-town business through the larger center is for the banks in the smaller communities the simpler and the more economical system.

Two centers may carry balances in a third

The second general scheme of settlement under a system of local independent banks was described as that where two centers carry balances in a third common center. New York, for example, functions as an intermediary between most of the larger towns of the United States whose mutual business dealings are not sufficiently extensive to warrant direct banking connections. In this case while the individual items in the exchanges may be sent directly to the communities against which they are chargeable, or indirectly through the common reserve center, remittance is made by means of a draft on the reserve center. The net result of the operations is thus simply a shifting, on the books of the banks in the reserve center, of the balances carried there by the communities concerned. An Albany bank, for example, has a check that was drawn on a bank in Trenton. This check would in all probability be sent by the Albany bank to its New York correspondent. The New York bank will in turn send it to its Trenton correspondent if it has such, or to some bank in Trenton which will undertake collections of this character. The Trenton bank will then put the check through the local clear-

ings or will present it for payment at the counter of the bank against which it is drawn, and when the check is thus paid, the Trenton bank, acting as the collecting agent, will remit by drawing a draft on its own correspondent in New York. In other words the claim that Albany has against Trenton as embodied in the check, is settled by means of a transfer to the credit of Albany of a part of Trenton's New York balance. Claims that Trenton might hold against Albany would be settled in a similar manner, but the movement would be in the opposite direction. In both cases the interesting and important point is the shifting of balances in New York. Credits offset debits and net differences result in net balance readjustments.

Currency shipments in this case

Currency movements in the case of two communities thus clearing through a third are not between the two communities directly concerned. They take place, if they develop at all, only between such communities and the common clearing center. The circumstances which give rise to them are the same as those already referred to in the cases discussed above. Currency will move from the local communities to the clearing center when the local communities wish to strengthen their balances in such centers, and when funds payable in such center are not more cheaply attainable in some other way. Currency will move from the clearing center to the local communities when cash balances at home need strengthening or when surplus balances in the clearing center cannot be more cheaply drawn down in other forms. Moreover, if a given community is dependent on a single center for all its payments and collections arising in connection with out-of-town business, it is apparent that currency shipments will not be made because of the relations obtaining between the community concerned and any other single community with which it may be clearing accounts through the common center, but only as a result of its entire position. All the community's foreign business is reflected in the movement of its balance in the clearing center, and it is, therefore, only when

the totality of its foreign business requires it that the shipment of currency in either direction is undertaken.

There may be secondary centers as well as a primary center

The third general scheme of clearing arising under a system of local independent banks was described as one in which two local communities might depend for their clearances on two other communities which other communities in turn might depend on the intermediation of a fifth community.[1]

Here also the individual items involved in the clearings may be sent directly by the respective claimants or they may be sent indirectly through the reserve holding intermediaries, but the remittance would in this case be in the form of a draft on the primary center obtained by the banks in the ultimate communities concerned from their correspondents in the secondary centers. Drafts on the primary center must of course be paid for, and all such drafts drawn by banks in secondary reserve centers for, or on account of, their correspondents in outlying communities are charged against the balances of these correspondents in the secondary centers. In other words, in the case assumed, remittance is effected through a double transfer of balances, first in the secondary reserve centers, and secondly in the primary center acting as the intermediary between the secondary centers.

Example

Suppose, for example, that a merchant in Stockton, Cal., had purchased a shipment of shoes from a manufacturer in Brockton, Mass. Suppose also that Stockton and Brockton handle all their foreign business respectively through San Francisco and through Boston, and that Boston and San Francisco clear through New York. If the Stockton merchant remits by means of a check on his local bank, the Brockton bank in which it is deposited may send it to a collecting bank in San Francisco or it may depend upon its Boston correspondent to handle the collection.

[1] Even more complicated arrangements are conceivable, but it is not necessary to attempt to carry the analysis beyond the actual complications of practice.

Remittance will, however, be made by means of a New York draft obtained from its San Francisco correspondent by the Stockton bank. For the draft so furnished the account of the Stockton bank in San Francisco will be debited. In other words, Stockton's balance in San Francisco and San Francisco's balance in New York will both be reduced. The Brockton bank receiving the remittance will then send it for credit to its correspondent in Boston, while the Boston bank will in turn forward the item for credit to its own correspondent in New York.[1] The New York bank presumably puts the item through the clearing house for final collection. In other words this aspect of the transaction involves an increase of Brockton's balance in Boston and of Boston's balance in New York. Looking at the transaction as a whole there was thus a readjustment of balances in the secondary centers, Boston and San Francisco, and a shifting of balances in New York.

Instead of assuming that the Stockton merchant would send his own check, we might have assumed that he would at the outset obtain from his bank a New York draft drawn by his bank's San Francisco correspondent. Or we might have assumed that the initiative would be taken by the Brockton creditor through the drawing of a draft or bill on his Stockton customer. As already indicated, however, the particular form of procedure would not affect the basic facts, namely, the readjustment of balances in San Francisco and in Boston, and the shifting of balances as between San Francisco and Boston in New York.

Curren shipments here

In this rather complicated case of clearing it is also well to note that currency shipments are practically never between the ultimate communities concerned, nor yet between the secondary reserve centers. When currency shipments arise at all they are between these ultimate communities and their respective reserve centers, and between

[1] The draft may by agreement be sent directly to New York to be credited to the account of the New York correspondent of the Boston bank concerned.

the secondary centers and the primary center. Moreover possible shipments of currency in the one case have no necessary connection with shipments in the other. In each case it is simply a question of the availability of cheaper means of strengthening balances in the respective reserve centers under one set of conditions, or of drawing down balances under opposite conditions.

Domestic exchange

Bills, drafts, *etc.*, arising in domestic clearings, payable in any place, are sometimes spoken of as the "exchange" of that place, although in practice "exchange" is pretty generally limited to bank drafts. A draft on a New York bank is thus "New York exchange," on a Chicago bank it would be Chicago exchange, and so on. In the main. however, the term "exchange" is confined to drafts on the larger centers. Drafts on smaller towns, when employed, enjoy no special designation. The basis of this discrimination in nomenclature is probably the fact that the bulk of the demand is for the drafts on the larger centers.

The value of exchange depends upon demand and supply

Having funds in hand in one place is, of course, not the same as having funds available in some other place, hence in any given community "exchange" on another place is not necessarily something of uniform value. The value of "exchange" like that of every other economic good tends to fluctuate with the changes in the forces and conditions that underlie demand and supply.

Circumstances underlying demand and supply

In the main reference has already been made to the circumstances, in any given community, underlying demand for and supply of exchange on some other center. They are the economic dealings of individuals in the community with others on the outside. The dealings which result in "credits" for the community concerned, will in the end figure directly or indirectly on the supply side of exchange. In like manner the dealings which result in "debits" will be found to exert their influence on the demand side.

A market for domestic exchange may develop

Where the exchange operations are of sufficient volume a market for "exchange" may develop and the rates quoted from day to day may be variable. The rate for New York

exchange, for example, in some of the larger cities of the United States, is regularly quoted in the newspapers. As the demand for New York funds increases the rate advances. As the supply relatively to the demand increases the rate declines. As with other prices determined under competitive conditions the rate for "exchange" tends to be uniform throughout the market. Moreover, the fluctuating rates apply in the main not to small individual operations, but to the large operations in round amounts by the banks themselves, or by the larger firms having relatively heavy payments to make. As far as the individual is concerned, he is usually able to handle his out-of-town remittances or collections through his local bank on some fixed basis, the fluctuations in the rate that affect his bank being absorbed by the bank itself in the shape of extra profit or extra cost, as the case might be. Thus the New York Clearing House fixes rates of collection for out-of-town items for all its member banks. On the other hand, in the interior, New York funds in reasonable amounts, can usually be had for the asking by any bank depositor.

The prices may fluctuate but they rarely affect private individuals

There are of course, under normal conditions, positive limits within which domestic exchange rates can fluctuate. These limits are determined by the cost of shipping "lawful money." In foreign exchange operations, discussed in the following chapter, the limits within which the rate fluctuates are spoken of as the "gold points," because of the general reliance upon gold bullion as a final means of payment in this sphere of exchange. In domestic exchange operations, owing to the general availability for reserve purposes of other forms of money beside gold, the limits of fluctuation of the exchange rate may be called the "currency points."

The fluctuation is normally limited

A moment's reflection will reveal the necessity for such limits. "Exchange" is simply a right to demand the lawful money of a country, in the place on which such exchange is drawn. Obviously nobody will normally pay more for a mere right to demand money in a given place

than it would cost actually to ship the money itself. In like manner the possessor of such a right to demand would in the sale of his right not be willing to sacrifice more than it would actually cost to have the money itself forwarded to him. As exchange is said to be at a "premium" when the rate for it advances above par and at a "discount" when the rate declines below par, the general statement may be made that the premium or discount on any form of domestic "exchange" in a given market cannot normally exceed the cost of shipping currency either to or from the center on which such exchange is drawn.

Elements entering into the cost of shipping currency

The elements entering into such cost are familiar. There is, of course, first of all the transportation cost. This would obviously vary with the kind of money that was shipped, namely metallic, paper, *etc.* It would vary also with the kind of transportation agency that might be employed, and the rates thereon that might be charged. Akin to the transportation charge is the insurance premium covering the risk naturally involved in the shipment of money. In so far, also, as the money in process of shipment is not available for reserve purposes there is an element of cost represented by the loss of interest. Finally reference might be made to incidental charges like packing, carting, *etc.* Looking at the costs as a whole, however, it may be said that at any given moment the range of fluctuation of domestic exchange rates is determined by the most economical combination of elements in shipping cost that can be obtained.

Currency movements may affect reserves

Currency movements may or may not have an important bearing on reserves. Where a bank may count as equivalent to cash reserves in its own vaults the balances carried with institutions elsewhere, the shipment of currency may involve simply a shifting of the location of reserves. But where balances elsewhere are either as a whole or in part unavailable for reserve purposes, currency shipments have an obvious bearing on a bank's reserve position, and hence on its general capacity to serve the community. In any event, however, the cost of shipping currency represents an

The necessity for them should be narrowed as much as possible

expense the necessity for which should be reduced to the lowest possible level.

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CHAPTER VII

INTERNATIONAL CLEARING AND EXCHANGE

International clearing requires independent discussion

The general nature of clearing was discussed in the preceding chapter, but, as was there indicated, the subject of international clearing and exchange presents so many distinctive features that it requires to be independently discussed.

International clearings are based on international transactions

International, like domestic, clearing operations, grow out of a complex variety of economic transactions between individuals. But there are some important points of distinction. International clearings are based on transactions between individuals in different countries, whereas domestic clearings grow out of purely "home" business, even though some of this "home" business may be directly or indirectly based on foreign business.

The money calculations also are not the same. In international, as in domestic, trade individuals are seeking the maximum economic advantage. This has led to the far-reaching division of labor that characterizes modern economic life with all that such division of labor implies with respect to commerce and exchange. But the economic advantage as pursued is thought of in terms of money, and the degree of success or failure that may be achieved is estimated in money sums. In domestic trade both parties to any given transaction make their calculations in terms of the same money unit, but in international trade where nationals of different countries are involved, all the parties of interest finally estimate either cost or return in terms of the money units of their own countries. Therefore international payments involve usually not only the transportation of funds from one country to another but also their transformation from one kind of money to another.

In any kind of trade between individuals situated at a distance from each other dependence upon actual payments in money would involve the shipment of the money from the debtor to the creditor. Under such circumstances there would of course be numerous "cross-shipments" of money. In early times the bill of exchange was invented to prevent useless money-shipments, and it was successful in this particular because it embodied the principle of the clearing of reciprocal claims. If A in place 1 sells to his banker a bill drawn on B in place 2, and if C in 1 buys from the banker a draft on his correspondent in favor of D in 2, assuming the same amounts in both cases, the bankers are simply the intermediaries through whom A's credit offsets C's debit. In domestic trade under the development of modern banking the process of clearing has progressed far beyond the possibilities here exemplified, but the employment of different monetary units in international trade has kept international clearing closer to the primitive type.

Gold is not the medium in international exchange

It is sometimes said that gold is the standard of value and the medium of exchange employed in international trade. Such a statement does not, however, square with the facts. International trade is carried on today not in terms of gold but in terms of money units. Such money units may themselves be kept at a certain gold value, but that is by no means the same as saying that gold is the actual medium. There are times when the supposed gold parities are not maintained, when gold payments are entirely suspended, and yet international trade continues to be conducted in terms of money units. Even when gold shipments are undertaken it will be seen that the occasion of the shipments is a difference in relative money values rather than any sudden development in the employment of gold itself.

The particular money unit employed by international traders depends upon agreement between them. This agreement is largely a question of the marketability of

A money unit is employed as agreed by the traders

bills drawn in terms of different money units. Whatever the particular money unit that may be employed in any given transaction the debtor can ultimately pay and the creditor will be willing finally to receive only the money of his own country. This necessitates, therefore, the transformation directly or indirectly of the funds supplied by the debtor expressed in terms of his country's money into funds expressed in terms of the money of the creditor's country.

There are three possibilities in making foreign payments

There are three general possibilities of making foreign payments.

Bullion may be shipped

(a) The debtor may purchase in his home market the standard bullion of the creditor's country and ship that at the mint price. Thus an American having a payment to make in England could buy gold in the domestic market, ship it to England and have it there converted into English money at the established mint price of 113+ grains per pound sterling. But this would, of course, be a crude and wasteful method of payment.

The other two possibilities are based on the principle of clearing.

A process of clearing may be relied upon

(b) The creditor may draw a draft or bill on the debtor or on his agent and may sell such draft to an international banker having an office or a correspondent in the creditor's country. This draft or bill may be in terms of the standard money unit of the debtor's country or of that of some other country. This point will be discussed later. It will be sold, however, for funds expressed in terms of the money unit of the creditor's country, who (assuming the ultimate payment of the bill) is then out of the transaction. Such bills are in general known as "commercial bills of exchange" although there are of course many types of such bills.[1]

Commercial bills of exchange may be employed

(c) The initiative may be taken by the debtor who pur-

[1] See Spalding's *Foreign Exchange and Bills* (1915). This book is written from the English point of view, but it contains much useful practical information.

chases from his banker a draft or order payable in terms of the money of the creditor's country or of such other money as may be acceptable to the creditor. If such a draft or order is payable in the money of a country other than that of the creditor, the latter relies on his ability satisfactorily to dispose of the claim in his own market. Such bills, drafts, or orders are known as bankers' bills and of these too there are different kinds. Or bankers' bills

Whatever the form of procedure, that is, irrespective of whether debtor or creditor takes the initiative, reliance must be placed upon the mediation of international bankers. They must either buy or sell the necessary bills. It is, of course, apparent that the purchase of commercial bills results in the building-up of balances abroad against which bankers' bills can be sold. The sale of bankers' bills manifestly reduces the balances. These balances can, therefore, be controlled through a proper regulation of bills bought and of bills sold. In so far as purchase and sale offset each other, there is involved simply the balancing of debits and credits implied in clearing. International bankers are necessary

The necessity of transforming or of translating the money claims arising in international transactions prevents the utilization in that field of the individual check. Were there a common money unit individual checks would not be impossible, but in such a case, as in domestic clearing, some form of international centralization of reserves or of voluntary exchange arrangements would be necessary. Assuming such conditions all that was said concerning these matters in the discussion of domestic clearing would be equally applicable here. Individual checks are not serviceable in international transactions

Money claims or orders bought and sold in international transactions are known as "foreign exchange"—sterling, mark, franc, *etc.*, according to the money units in which they are ultimately payable. "Foreign exchange"

In theory the reciprocal obligations between any two countries might be settled either with commercial bills or with bankers' bills, in the "exchange" of the debtor's In theory bankers' or commercial bills may be employed

country or in that of the creditor's. Practice, however, tends to establish a pretty definite procedure.

Practice fixes the procedure

Where the operations between two countries are direct, that is, where there are direct banking connections between them, but where one is largely a creditor country and the other is largely a debtor country, the initiative both in collecting amounts due and in remitting for debts payable tends to be taken in the debtor country, while the money unit employed tends to be that of the creditor country. The methods employed in the operations between England and the United States illustrate the point. If an American be the creditor he will in the great majority of cases sell a sterling bill. If he be the debtor he will buy a sterling bill. In both cases the initiative is taken in America.

Explanation of practice

The whys and the wherefores of this form of procedure are not difficult to understand. International loans, like domestic loans, are made in terms of money. The advances are made in the form of balances entered to the credit of bankers in the borrowing countries, and they are availed of through the sale of bills drawn against the credits. Of course the sale of these bills in the debtor country assumes that directly or indirectly payments are to be made for goods received or for services rendered.[1] That is another way of saying that to be a creditor in international affairs a country must have a surplus of wealth for lending purposes. As the loans are, however, in terms of money, the individual creditors involved in the transaction and the ultimate sellers of goods on which the credits are based will in general desire to employ the money unit with which they are familiar. Since so large a part of the trade of borrowing nations depends upon credit obtained elsewhere, the preference of creditors and sellers in the lending country in this matter of payment becomes controlling.

In transactions between countries whose mutual deal-

[1] The "directly or indirectly" here employed takes into account the possibility of three-cornered exchange.

ings are not large, or which are not, on the average, evenly balanced, bills or remittances may be drawn in terms of the money of a third country. This presupposes in each of the two countries concerned a substantial market for the "exchange" involved. The debtor must feel fairly sure of a reasonable purchase price for such exchange, while the creditor must feel a similar assurance about the selling price. Such assurance can in both cases be felt only when the exchange employed is regularly dealt in in each country in sufficient volume to assure relative stability of the day-to-day rates.

The money unit of a third country may be employed

It is a matter of general knowledge that the English money unit, the pound sterling, has become by far the most commonly employed unit in international transactions. In the United States imports from South America, from Africa, and from the Orient were, until the outbreak of the Great War, paid for almost entirely by means of bills on London. And what was true of the United States was likewise true of other countries. Indeed it is usually stated that the sterling bill constituted the real medium of international exchange.

British "pound sterling" has been the chief international unit

This widespread use of the sterling bill as an international medium of exchange was due mainly to three factors: (a) The tremendous scope of British commerce; (b) The lending power of England, and (c) The security in gold of the sterling bill. A word or two more concerning each of these factors will contribute to the general purpose of this chapter.

Explanation of this

The British Empire grew out of the system of Mercantilism. One of the main objects of this system was the upbuilding and the maintenance of a "favorable balance of trade." England's leadership in the Industrial Revolution enabled her in the pursuit of this object to push her trade all over the world, and the control of colonies in both hemispheres made the task all the easier. There were few sections of the world where English commerce and shipping were unknown, and, consequently, there were few

British commerce

traders in the international markets who did not on one occasion or another find it necessary to make payments to England. Hence the universality of English trade coupled with the fact that it formed so large a proportion of all international trade, gave great vogue to the sterling bill as a means of remittance.

Britain a creditor nation

Of equal importance, however, is the fact that England has for more than a century been the great creditor nation of the world. Not only new countries like North and South America, Africa, and Australia, but also the countries of the European continent depended on England for the marketing of stocks and bonds and for the making of loans. With her enormous productive power based on machine industry England was in a position to meet the needs of less developed countries, and she met these needs by opening credits in London against which the borrowers sold sterling bills in their own markets.

The sterling bill has been as "good as gold"

The sterling bill has been, moreover, always as "good as gold." England led the way in the formal adoption of the gold standard in 1816. Excepting the highly abnormal period of the Great War there never has been a time within almost the whole of the past century when the holder of a sterling credit could not feel sure that if he so desired he could obtain gold at par. Few, of course, would actually want the gold, but the certain possibility of redemption in gold gave a feeling of comfortable security to the holder of a sterling bill and consequently widened the market for it.

London, the world's clearing house

The widespread use of sterling exchange in international trade explains the statement that London was the "clearing house of the world." It has already been set forth what the process of clearing involves. Through the maintenance of balances in London, bankers have been able to buy and to sell sterling bills, and the employment of these bills in trade all over the world has permitted a setting off of reciprocal liabilities through transfers on the books of London banks. In other words London has been a sort

of "central reserve agent" and adjuster of reciprocal liabilities for almost all the nations of the world.

War has reduced dependence on London

It must be observed, however, that the Great War has temporarily injured the prestige of the pound sterling in international trade, and has, consequently, diminished the serviceability of London as the world's clearing house. The Teutonic belligerents and their Allies, in such foreign trade as they have preserved, would of course not find much usefulness in a sterling bill. Their London balances were pretty summarily smothered at the outbreak of the war. The war also narrowed the scope even though it did not in like degree diminish the volume of British commerce. Similarly the exigencies of belligerency, and the dependence upon England for a part of the sinews of war on the part of the other Entente Allies, greatly reduced England's ability to lend to the rest of the world. The favorable position of the United States in this particular greatly stimulated the employment of the American dollar as an international medium. Finally it must also be whispered that the certainty of redemption in gold has not been constantly maintained. Freedom of export of gold when the exchange situation required it was through a gold "embargo" practically suspended, and the government allowed the exportation only of so much gold as it deemed desirable.

Dollar exchange

The attempts made during the progress of the Great War to stimulate the use of "dollar exchange" in international transactions make it of interest and of importance to the American student to consider more generally upon what the employment of any country's "exchange" in the world's market really depends.

What is necessary for the employment of a country's "exchange"

It depends in first instance upon a country's productive efficiency.[1] Bills drawn in terms of the money unit of a given country and made payable in its financial markets can be employed only when there is a demand for them. Such demand can arise only when the country concerned

[1] Cf. Hartley Withers, *International Finance*, pp. 28 et seq.

Productive efficiency

can supply to the outside world economic goods that are needed.

Power to lend

In addition to the creation of needed utilities the country must be able to lend abroad widely and cheaply. This involves the creation of an adequate surplus at home. A large part of foreign trade today, especially that with new countries, depends upon the lending to the newer countries by the older and established nations. The lending and investing of "money" and the sale of goods go on hand in hand, and wherever goods are sold there is a basis for the demand for bills of exchange. Then in connection with bills in general trade the demand will, other things being equal, favor the market where the rates of discount rule at the lowest level.

Development of adequate machinery

The necessities of the foreign exchange business require also the preparation of adequate machinery to handle it. Direct banking connections of some kind are imperative. It is the bankers who purchase bills of exchange in first instance, and, in the financing of foreign trade through the extension of commercial credits, *etc.*, it is essential for them to have trustworthy representatives on the ground to judge of the character of risks, to analyze the possibilities of the market and to solve similar problems. Moreover, such banking connections must be sufficiently widespread to permit broad arbitrage operations, otherwise discrepancies in the rates in different markets will tend to develop which must of necessity react unfavorably on the employment of the country's exchange.

Stability and security of money and credit system

Lastly may be mentioned the importance of stability of the country's money and credit system. The money system is, of course, at the basis of the credit system, and the money in which the credit claims represented by bills of exchange are ultimately redeemable is a matter of vital moment to him who is expected to purchase a bill of exchange or to accept it in settlement of an obligation. Then the credit system must be so constructed that there are positive safeguards against anything like serious collapse,

otherwise the holder of a bill can never be sure of its standing.

The reciprocal claims between individuals in different nations arise in the same way that domestic claims arise. Every textbook on foreign exchange sets forth their origin in more or less complete detail. It would therefore constitute a work of supererogation to attempt to discuss the subject fully here. For our purposes it will probably suffice to summarize as follows the transactions giving rise to these claims:

Basis of reciprocal claims in international trade like that of claims in domestic trade

a. The purchase and sale of commodities.
b. The purchase and sale of securities.
c. Services of various kinds rendered for compensation.
d. Borrowing and lending.

According to the nature of the transaction the result, as in domestic exchange, is a "credit" or a "debit." All payments which have to be made to the foreigner are "debits" and underlie the demand for foreign exchange. Conversely all sums owing by the foreigner are "credits" and add to the "supply" of exchange.

The rate of "foreign exchange" in any market depends upon the relation between the demand for and the supply of such exchange in the market concerned. The exigencies of the domestic exchange situation usually lead to the establishment in a country, and normally at the country's financial center, of a single exchange market. It is at the financial center that the biggest banks with important foreign connections are likely to be established, and in that center, in consequence, the best market for bills is likely to be found. The volume of transactions in such a market is usually so large that the rates there determined control similar rates all over the country. In the United States, for example, the rates for foreign exchange, determined by the competitive forces playing in the New York market, practically fix the rate quoted in every other city in the land.

Rate of foreign exchange usually fixed in country's financial market

The rate for foreign exchange fluctuates about a point

Explanation of "mint par"

which is designated the "mint par." With money systems based upon a single metal like gold, and with freedom of coinage, the standard money units bear a relation to each other that is determined by the relation of their bullion contents. Thus because the English pound sterling contains 113+ grains of gold and because in like manner the American dollar contains 23.22 grains of gold, the pound sterling is said to be equivalent to $4.8665. The money equivalents of the bullion contents of either of the standard units thus express the "mint par" of the units concerned.

Fluctuations in rate are due to changes in relation between demand and supply

The market rate of exchange fluctuates above and below the mint par according to the action of demand and of supply. As demand increases the exchange rate rises and if "demand" exceeds "supply" the rate advances above par. Conversely a falling off of demand or an increase in supply tends to depress the exchange rate and may force it below par. But while the exchange rate fluctuates about the "mint par" it must not be assumed that "mint par" constitutes in any sense a "norm" to which competitive forces are tending to force the rate.

Cost of shipping bullion limits fluctuation in exchange rates

As with domestic exchange rates, so in the field of foreign exchange the fluctuations in the rates are normally limited by the cost of shipping acceptable currency or bullion. In domestic transactions various kinds of money are made available for reserve purposes, and hence it was necessary to speak broadly of currency shipments rather than more narrowly of shipments of standard bullion or even of standard coin. But in international transactions where different kinds of money are involved, owing to the difficulty of obtaining in one country any large supply of the money or currency of another country, the only certain method of creating or strengthening a balance in a given country is by shipping thither the standard bullion of its money system. This bullion can then be presented at the mint or other agency and actual money, or a credit advance at the mint price, can be obtained. Where the stand-

ard money of one country happens to be sent in shipments to another country it is regarded merely as so much bullion. As most of the countries of the world are today on a gold standard the bullion involved in international exchange is gold. The possession of gold bullion anywhere is, allowing for costs of shipment and assuming freedom of movement, a potential claim to the money at the established mint prices of every gold standard country. If a silver standard country were involved, the bullion shipped would be silver, but there could not be an established "mint par" between the unit of a gold standard country and that of a silver standard country owing to the fluctuation in the relative value of the metals themselves.

No mystery about bullion shipments

In no case is there, however, any mystery about bullion shipments in international exchange. Such shipments are always and only for the purpose of obtaining the money, or of establishing balances in terms of the money, of the country to which the shipments are consigned. Individuals never ask for nor undertake to make shipments of bullion for the sake of the bullion. Their calculations are wholly in terms of money. Bullion shipments are undertaken by the bankers long before it would pay the individual debtor or creditor even to think of them.

Bullion shipments avoided if cheaper expedients are available

Moreover, it must be borne in mind that shipments of bullion to a country are not undertaken if money-funds in such a country can be more economically obtained in other ways. Transfers of funds may be made through arbitrage operations, or loans through other countries may be arranged. All such relief expedients exert their influence, however, on the supply side of the market, and they check gold exports only when they succeed in holding the exchange rate below the gold export point.

Fluctuations in exchange rate indicate changes in money purchasing power of bullion

It is also interesting to notice that fluctuations in the exchange rates between two countries on a gold basis imply fluctuation in the money-purchasing power of gold bullion in such countries. The employment of gold as the "standard" means the maintenance of the standard money

at a fixed value in gold. Such a parity can be maintained through freedom of coinage and through the melting pot if the standard bullion is itself coined, or through free exchange at the fixed rate of bullion for money and *vice versa* if the bullion is not coined. But given fixed mint prices for gold bullion in two countries, discrepancy between the market ratio of such moneys and the established mint ratio obviously carries with it the implication of a difference in the money-purchasing power of bullion in the two countries. For example: when the rate of sterling exchange in New York is $4.76 that implies that that which is current as a pound sterling in London can be purchased for $4.76 in New York. But the mint par between dollars and pounds sterling is $4.8665=£1. In other words, the gold necessary to purchase the equivalent of a pound sterling in the United States is less than the gold required to purchase a pound sterling at the English mint. Gold thus being "worth more" in the United States than in England would, like any other commodity, tend to move from the market of relatively low value to that of relatively high value provided that the difference in value were great enough to cover all the costs of obtaining and of shipping it.

Items involved in shipment of bullion

The items of cost involved in the shipping of bullion are familiar. A satisfactory discussion of this topic can be found in almost every textbook dealing with the subject of foreign exchange. Here only brief reference will be made to it. First may be mentioned the item of freight. This naturally varies with all the circumstances that normally affect such a charge. Next is insurance. This too varies with all factors affecting risk. Then there may be mentioned the loss of interest. Gold in the hold of a ship is withdrawn from use unless special provision is made for advances of credit against the importation of gold. There may, however, be no loss of interest to the banker shipping gold because at the moment of shipment bills may be sold against the credit which the gold is expected

to establish.[1] But in cases where there is loss of interest this loss will naturally vary with the rate prevailing in the market from which the gold is withdrawn. Lastly may be mentioned the incidental costs involved in packing, carting, *etc.*

The "gold points"

All these items taken together fix the so-called "gold-points" which under normal conditions establish the limits within which the foreign exchange rates fluctuate. In general, owing to the improvements in ocean transportation freight rates have diminished, and, with the reduction of risk, insurance rates have declined. The margin between the gold points has therefore on the whole been narrowed. But it is apparent that any interference with any of the factors involved in shipments will upset the automatic limitations of rate fluctuation. Should gold be not freely obtainable, should it be difficult or impossible to secure adequate shipping facilities, or should the insurance system break down the exchange rates might move far beyond the usual "gold points."

Gold movements have a serious bearing on a country's banking system

Gold movements in international exchange transactions are of course of great importance to the credit situation in the countries concerned. While careful economic analysis has demonstrated to the modern student the fallacy of the crude "bullionism" of early days and of the more refined "mercantilism" of a later period, and while the statement that the gold supply of the world tends to adjust itself without arbitrary control among the various nations according to their several needs is now regarded as almost a truism, the fact remains that gold movements are watched as carefully as ever, and they are at times interfered with

[1] At the outbreak of the Great War some New York banks sold bills against gold that had been sent on the steamship Kronprinzessin Cecelie. As the steamer returned to America without delivering her cargo, the bills sold against the gold she carried had subsequently to be covered at a loss The banks brought suit against the steamship company to try to recover their losses, and having obtained judgment they libeled the ship. Subsequently, however, the case went against the bankers before the Supreme Court of the United States.

and controlled much more effectively than was ever dared hoped for by the benighted bullionists. Because gold today constitutes the foundation of money and credit, gold movements are more important than they ever were.

Bearing in mind the importance of the gold reserves to modern credit, the satisfaction that bankers manifest over gold imports, and the apprehension that they usually exhibit over gold exports, need cause no surprise. Where the reserves of a country are centralized and the nation's gold supply is largely in the hands of the central institution, movements of gold may react instantly upon the whole domestic credit structure. Under decentralized reserves gold movements may affect in first instance the main financial center, but the necessities of domestic trade and exchange assure such intimate connection between the financial center and the outlying markets that nothing can seriously affect the financial center without reacting to a large degree upon the country's credit system as a whole. In some cases balances maintained in gold standard countries abroad or bills payable in such countries may be included in domestic reserves. Hence it might be supposed that shipments of gold to strengthen such balances involve simply the re-location of reserves. But foreign balances are after all usually "ear-marked" for special needs and in times of emergency they are likely to be utterly useless in supporting credit at home.

Unnecessary gold movements should be avoided

Consequently, whatever the system of reserves that a country may have supporting its bank credit, gold movements to and from such a country are bound to react forcefully on such credit. Some movement in either direction may at times be normal and desirable, but movements which imply a weakening of necessary reserves on the one hand, or a swelling of redundant reserves on the other, are always to be deprecated. Restraining measures ought, if possible, to be applied to prevent them.

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CHAPTER VIII

RESERVE ORGANIZATION AND UTILIZATION

Elasticity of bank credit over country as a whole involves question of reserves

Elasticity of bank credit involves something more than the powers intrusted to individual banks. It involves also the question of the organization of banks into a system. Sufficient emphasis has already been placed on the circumstance that the demand for bank credit varies absolutely and relatively from place to place and from time to time in the same place. The causes of this variation have also been discussed. Attention may be directed, therefore, to the means that may be provided for meeting such variation. As the extension of credit depends primarily upon the reserves available for the purpose, the ultimate factor in elasticity over the country as a whole is that of the system of reserves.

Mobility of reserves is necessary

The bank reserves of a country may be fully centralized, partially centralized, or thoroughly decentralized. When there is a variation in place demand for bank credit the necessary adjustment can be made only when directly or indirectly the reserves on which credit is based flow from the place of small demand to the place of relatively larger demand. Variations in demand are reflected, of course, in the rates that are paid for credit advances, and the result of an easy flow of credit from the place of relatively small demand to a place of larger demand is a tendency toward uniformity in rates. The greater the mobility of reserves, or of the credit based on the reserves, the more closely will money rates over a country approximate uniformity.

The freest flow of bank credit would seem to be assured

under a system of centralized reserves. Under such a system the net reserves of each community are represented by the claims that it may have, in the shape of deposit balances or of notes, against the central reserve agency. The redundant funds of one community may thus be easily and rapidly put at the service of the community with greater need. It is simply a question of a shifting of balances on the books of the reserve agency and of the security that may be offered for the desired advance by the community with the increasing need.

Freest mobility under centralized reserves

Under a system of partially centralized reserves two possibilities must be considered. There may be a central reserve agency in which the banks deposit a part, but only a part, of their total reserves. In the absence of any supplementary expedients the mobility of credit would obviously depend upon the proportion of the total reserves so centralized. The second possibility is that of a system of relatively few independent banks with many branches, as in Canada. Here partial centralization arises from the fact that there are comparatively few independent banks. Under such a system it will be apparent that mobility depends upon the number of such banks and upon the diffusion of their branches.

Mobility under partial centralization

Under a system of decentralized reserves—that is under a system of virtually independent banks each holding its own reserves—a free flow of credit from place to place is more difficult of achievement. Two possibilities suggest themselves. The banks may voluntarily establish effective interrelations over a wide area. This would permit a reapportionment of credit from place to place if the collateral circumstances—available security, business habits, *etc.*—were favorable. In the second place if bank credit is largely based on a standardized form of widely acceptable investments, which are freely offered by prospective "borrowers" in a relatively large open market, funds will also tend to flow to the place where the demand is greatest because of the willingness of such place to pay a sufficiently

Mobility under decentralized reserves

attractive rate. The larger the country, the more numerous its banks, and the greater the diversity of its population, of its industry, and of its trade, the less will be the likelihood of any achievement of real mobility under this system.

Normal time variations may be taken care of by bank without external aid

The variations in the demand for bank credit from time to time in any community require a reserve margin for normal variations, and facilities for strengthening reserves in periods of unusual stress. The individual bank must keep on hand sufficient reserves to meet the ordinary variations in demand that every bank encounters. That is to say, besides its mere till-money used to "cash" claims presented over the counter, a bank must reserve a fund which will, within limits, permit a further extension of its usual facilities. Inadequate emphasis is often put on this function of the bank's reserve.

Extraordinary increases of demand require outside aid

Extraordinary increases of demand, however, necessitate a bank's seeking some outside aid. The maintenance by each bank of reserves large enough to meet unusual, as well as the ordinary, variations in demand would necessitate an unduly high average. This implies a loss of efficiency. In view of the fact that over a country as a whole these variations in demand will not be uniform or in the same direction, the problem of meeting them resolves itself into one of a rapid compensatory shifting of credit from the places where demand may be relaxing to the places where it is strengthening. In essence, therefore, it is another aspect of the problem of variation in place demand.

Time variations and centralized reserves

As before, it may be pointed out that under a system of centralized reserves provision for variations in demand for bank credit from time to time in a given place may be easily made. By carrying the major portion of their reserves with one reserve-holding institution, upon which in turn each bank may rely for assistance when such assistance is needed, credit may be extended as the need arises. Under such circumstances the individual bank does not have to maintain a relatively excessive reserve. In times

of abnormal pressure it may rely on the help of the central institution. Thus pressure on reserves in one locality may be distributed through the central agency over the whole area within which reserves are centralized. Ultimately the pressure may be sufficiently heavy to cause expansion of a country's credit as a whole, but in most cases the virtual shifting of reserves, from one community to another, through the mediation of the central reserve institution, suffices. Should reserves be only partially centralized the possibilities in this connection will, of course, be limited by the degree of centralization. In general the higher the degree of reserve centralization the greater are the possibilities with respect to mobility of credit.

Mobility under decentralized reserves

Even under decentralized reserves, however, considerable mobility is attainable. A variety of expedients may contribute to this end.

Facilities afforded by a broad loan and discount market

In the first place there may be a broad loan and discount market, in which borrowing and lending and the buying and selling of discounts is on so large a scale and over so wide an area that banks as well as individuals may confidently rely on finding in it lenders of funds or purchasers of good paper. The development of such a market depends upon the existence of large quantities of widely acceptable securities or credit instruments, and upon the possession by those in need of funds of adequate supplies of such securities and instruments. In the United States there has developed a commercial paper market through which the paper of large, well-known firms is widely distributed among the banks of the country. While this is of advantage to the firms concerned, it is of no great benefit to banks when the necessity for strengthening reserves presents itself.

Bank affilations, etc.

Other expedients also may be relied upon. There may be, for example, fairly wide voluntary bank affiliations which make possible mutual assistance in times of pressure. Again, special forms of investment may be employed to build up a secondary reserve. Stock exchange securities

Under decentralized reserves

Under a system of decentralized reserves about the same possibilities present themselves as were referred to in the case of indirect procedure under centralized reserves. The bank seeking assistance may borrow from or resell investments to selected banks elsewhere, assuming the possibility of its finding such other banks and also its willingness to deal with them in this manner. Or there may be an open market, covering a large part of the country as a whole, where the individual bank may count on reselling its investments to the extent that may be necessary. The result of any of these transactions would involve the virtual transfer of reserves from the lending or the buying banks to the borrowing or selling bank.

Investments available for strengthening reserves

In connection with this subject of strengthening reserves, there must, however, be noted the fact that not all of a bank's investments are readily subject to resale or to hypothecation. If we examine a bank statement we learn that, in the main, the bank's investments are made up of loans, of discounts, and of securities—bonds and stocks. The question is, therefore, to what extent may a bank avail itself of these different classes of investments for the purpose of strengthening its own position?

Loans

Loans that the bank itself has extended are, in most cases, obviously ill-adapted to further transfer. Loans are usually based on collateral security, and a transfer of the loan itself to some other lender, or the attempt further to borrow on the basis of the obligation involved in the loan, would necessitate the transfer of the underlying collateral. But the lending bank holds such collateral only as a trustee. It may legally dispose of or transfer such collateral only when at the maturity of the loan the lender fails to repay the total amount due or when he fails to provide additional security if this be called for under his contract. Before the maturity of the debt the collateral behind the loan remains the inviolable property of the borrower. Loans on collateral represent, therefore, a comparatively illiquid asset to a bank. Of course a bank may itself borrow by

pledging some of its own property, but that is clearly a different matter.

Securities

Considering next stocks and bonds, it is apparent that these may be readily sold where there is an open security market. The presence of such a market is, of course, indispensable, and where the organization and methods of the banking system are such as to preclude the possibility of a bank's strengthening its position in any other way, the speculative security markets may become in effect important adjuncts of the banking system, and security speculation may thus attain a degree of importance far beyond what would otherwise be the normal. But for strengthening reserves assurance afforded to a bank by the security markets is, of course, limited to the amount that the bank has invested in stocks and bonds.

Furthermore, it is generally agreed that beyond certain narrow limits stocks and bonds constitute an undesirable investment for a bank with heavy demand liabilities. While such investments may be relatively liquid the risk in carrying them is large. Fluctuations in the prices of securities are too numerous and too extensive to permit anybody except professional speculators to purchase them on any basis other than one of pure investment. As a rule banks will invest in securities only up to the amount of their capital and surplus, because the shareholders in their capacity as owners of the bank have no demand claims against the business. Beyond that, however, the tying up of liquid funds in stocks and bonds is regarded as inadvisable.

Discounts

Discounts remain therefore as the final dependence. Fortunately, they offer every advantage as a means of strengthening reserves. In the first place they constitute the bank's own property. When a bank discounts a note or buys a bill of exchange or similar instrument, the purchased instrument becomes the bank's property to do with as it sees fit. The bank may hold the discounted paper permanently as an investment, if it so elects, but it is free

at any time to resell such paper if it can find a buyer at a satisfactory price. The discounted paper represents a "right to demand" of which the bank made an outright purchase, and, assuming a perfect title, there is involved no question of trusteeship to others which restricts the bank's further selling right.

Discounts the most acceptable

Furthermore, discounts involving rights to demand specified sums at stated dates have at any time a definitely calculable money value. The value depends upon the length of time that the instruments have to run, and upon the rates of discount or rediscount that prevail in the market concerned. These rates are not, of course, absolutely stable, and the variation in the rates affects the money value of credit instruments, but this variation is not likely to be as frequent or as great as is that of security prices. In discounting, if the rate advances beyond what he originally charged, the banker needs simply to wait until the instrument matures when he collects the total amount due. At the worst there is only the sacrifice of what might otherwise have been extra profit. If the banker must, however, resell or rediscount some of the bills in his portfolio at a higher rate than he originally charged, he can select for the immediate emergency those bills whose term is almost run. Thus about ten days before maturity German bankers often rediscount bills at a higher rate than was charged when the bills were originally purchased. The short period for which the higher rate is charged simply reduces slightly the profit earned at the lower rate for the longer term. The fluctuations in the security market, however, threaten not simply a lessened profit but often a loss in principal as well.

Rediscounting and reserve organization

Rediscounting, it may then be assumed, is the most approved method of strengthening a bank's position. The utilization of this expedient depends, however, upon the system of reserves and upon market practice.

Under a system of centralized reserves—or to the extent that reserves are centralized—an individual bank may de-

pend upon the agency or agencies holding the "mobilized" reserves. If there be no open discount market, and if at the same time market custom has set itself against special arrangements by individual banks, rediscounting by the central reserve agency is indispensable to a reliance upon discounted paper as a liquid asset. These collateral circumstances may, however, be favorable, and in such case the reserve-holding agency needs to be depended upon only when the possibilities in the open market or through private arrangement have been exhausted. The greater the degree of reserve centralization, however, the greater must be the assurance that, when the demands of the market have exhausted the other expedients, the reserve-holding agencies can be relied upon as purchasers of satisfactory discounted paper.

Centralized reserves and rediscounting

Importance of open market

Even under a system of centralized reserves it is desirable, in the interest of ultimate economy, to have market conditions of rediscounting as open as possible. Where there is a broad and open market for rediscounts this may first be relied upon, and resort to the reserve agency is then necessary only when, on any given percentage of reserves, the available credit in the market has been exhausted. For example: Suppose that the percentage of reserves held to be necessary in a community is 10%. Bank A, we assume, with cash on hand and on deposit at the central reserve bank has a reserve of 20%. Bank B has, however, only 6% and feels the need of strengthening its position. The percentage considered desirable at the reserve bank C is, we assume, 40%, but for the moment we assume that the reserve bank has a surplus, namely 45%. If directly or indirectly in the open market Bank B can sell discounts to Bank A, Bank B can strengthen its reserves while Bank A is simply utilizing its own surplus reserves. If, however, Bank B cannot sell some of its discounts in this manner to Bank A, but must turn immediately to Bank C, the reserve agent, the reserve-holding bank can extend credit to Bank B only by increasing its own

liabilities, or in other words, by weakening its own reserves, notwithstanding the fact that some of its credit already extended to Bank A, in the shape of the deposit carried by Bank A, has not been fully utilized.

Rediscounting and decentralized reserves

Under a system of decentralized reserves rediscounting is possible when banks make special arrangements with each other. Banks in certain parts of the South and West in the United States thus often rediscount their paper with their New York correspondents. The possibilities of private arrangements of this kind are likely, however, to be restricted. A purely private bank, even though large, could not lend heavy sums of cash available for reserve purposes to other banks. On the other hand, where the law accepts as a part of lawful reserves the deposits by banks in other institutions not distinctively recognized as reserve-holding banks, as was the case under the National Banking System in the United States, only a proportion of the reserves could safely be so deposited, and the extension of credit in the shape of deposits by the bank acting as the reserve agent would necessarily be limited to this proportion. Furthermore, the bank holding the reserves being a profit-making institution is likely to estimate the credit it will extend to a correspondent bank rather on the basis of its correspondent's average balance than on the basis of such correspondent's real need.

Open market here

There may also be, under a system of decentralized reserves, a free and open discount market. The development of an open discount market is possible under any system of reserves, but assuming its existence, under a system of decentralized reserves a bank wishing to strengthen its position can offer for sale in the open market any acceptable paper in its portfolio. Such sales would involve not only readjustments of credit, but in all probability also readjustments of cash holdings. Necessary readjustments of credit and of cash holding growing out of operations in an open discount market over a country as a whole would probably involve complications of accounting, shipping,

etc., that would limit the scope of accomplishment of the market itself. But notwithstanding the limitations that scattered reserves might impose on the scope of an open discount market such a market would contribute much to the free flow of credit.

Open market desirable

Irrespective of the reserve system, an open market for discounts may then be considered highly desirable. The creation of such a market is contingent, however, upon the existence of certain factors of fundamental importance. In the first place, the credit instruments offered for sale must be of unquestioned standing and broadly acceptable. If paper is to pass freely from hand to hand it must be of a character to command absolute and general confidence. Paper based upon confidence in an individual is obviously not of that character, except where the individual concerned is a large firm of national standing. The "commercial paper" market in the United States was confined—at least up to the establishment of the Federal Reserve System—to the paper of relatively few large firms. The notorious Westinghouse and Claflin failures amply disclosed, however, the unsafe character of much of such paper. Hence in Europe the operations of the discount market involve in first instance the transformation of individual credit into bank credit. Bills drawn on and accepted by banks constitute the most desirable form. Trade bills drawn against commodities represent perhaps the next most desirable form. Purely individual instruments like promissory notes would naturally come last in the list of acceptable paper for broad marketing purposes. The almost exclusive dependence upon the promissory note (with often only a single name) in general commercial banking practice in the United States, precluded the development of an open discount market.

What is needed for open discount market

Willingness to use the market

Furthermore, the development of any market is predicated not only upon the existence of commodities suitable for trading in such a market but also upon the willingness of traders to utilize the facilities of the market. An

open discount market therefore assumes not only the existence of acceptable discountable paper but also the willingness of bankers to employ rediscounting as a normal expedient in strengthening reserves. Heretofore in the United States commercial paper has been a relatively "dead" asset because bankers developed the habit of holding on to it until maturity. A frank attempt to rediscount some of the paper in his portfolio would have subjected an American banker to suspicion. The attempt would have been interpreted as a confession of weakness. In certain rural districts of the West and of the South banks were less timid in this direction than were the banks of the country generally, but taking banking practice by and large in the United States it may be said that it was against the system of rediscounting. In Europe rediscounting is accepted as a routine matter, and the benefits of an open discount market have thus been long enjoyed.

Shifting of relative demand requires transformation of bank credit

The variation in relative demand—or the shifting of the demand for bank credit from one form to another—requires the transformation of this credit. If banks were not restricted by law the transformation would be rapidly made by them, according to the dictates of self-interest. While legal difficulties are not often thrown in the way of the transformation of note liabilities into deposit liabilities, the reverse transformation, for reasons already discussed, is often strictly controlled by law. Yet when demand shifts from deposits to notes—that is from instruments of limited to those of general acceptability, impediments in the way of note issue, which prevent the notes from occupying the place of the deposits, tend to throw the demand on the money in the reserves. This, as is understood, involves widespread contraction of all credit.

Intertransformability depends upon system of note issue

The attainment of intertransformability of the two forms of bank credit must depend largely upon the system of note issue in a country. The privilege of issue may be in the hands of a single bank, or it may be extended to competing banks. Moreover the competing banks may be

few with a safeguarded field, or they may comprise all the banks in a system.

The requirements of a monopolistic system of note issue may first be considered. Here local banks feeling the need of an increased issue of a hand to hand medium must perforce turn to the central bank of issue. The question under a monopolistic system is therefore, first, under what terms and conditions can local banks be sure of getting notes when notes are needed, and second, under what conditions may the central bank itself expand its note issue. Monopoly

Centralization of reserves, more or less complete, in the central bank of issue, would seem to be essential. That is to say, local banks would have to carry balances with the central bank, which balances could at any time be drawn down in the shape of notes. Moreover, it must also be possible for the local bank to strengthen its reserve balance through rediscounting or by means of a direct loan. It is conceivable that a local bank might sell discounts to or borrow directly from a central bank of issue without carrying with such central bank any regular balance, but this method would itself imply a considerable concentration of reserve funds in the bank of issue if the demands likely to be put upon it are heavy and widespread. Irrespective, therefore, of the relations that may obtain between local banks and the central bank of issue, a free transformation of deposit liabilities into note liabilities, under a monopolistic system of note issue, requires a considerable degree of reserve centralization in the bank of issue, and an assurance vouchsafed to the local banks that through loans or rediscounts the needed notes can be obtained.

The extent to which the central bank of issue can meet the needs of the local banks depends, of course, upon the degree to which reserves are in its control and upon the legal prescriptions which a monopolistic system necessarily imply. The more complete the control of reserves that attaches to the central bank of issue the more readily can

the fullest needs be met, and the more adequately can note issue as well as extension of credit in general be regulated. Similarly, the broader and more liberal the legal provisions under which the central bank operates, the more adaptable and the more elastic is its service likely to be.

Free and limited competitive systems

Under a system of free or of limited competitive note issue several circumstances must be taken into account. Where each bank is a bank of issue, in the absence of legal restriction, transformation of deposits into notes will respond to demand. Here it is only a question of prudence in the original selection of investments and in the maintenance of adequate reserves. Where legal regulation is imposed the transformability of deposits into note liabilities must work within the limits set by law.

Where note issue is not, however, permitted to all banks, but is reserved for only a proportion of those in the field, either the issuing banks must be numerous and resourceful enough to meet the shifting demand, or the non-issuing banks must obtain the needed notes from the issuing banks. The latter condition implies some sort of a working understanding between banks of issue and non-note-issuing banks. Such an understanding might involve partial deposit of reserves, and direct or indirect rediscounting, or borrowing by the non-issuing banks from the banks of issue. In the absence of such understanding, or of market practice whereby non-issuing banks may rely on the banks of issue, there is available, when an increase in the demand for bank notes arises, only one expedient, namely, the paying out of money from the reserves.

Cover for deposits must at least in part be also acceptable for notes

There remains a final point of great importance to which, in this connection, reference must be made. Under any system of note issue a part if not all of a bank's normal investments must be equally acceptable cover for notes as well as for deposits. It is trite to say that for each liability a bank must have as "cover" satisfactory assets. Whether a bank is extending its credit in the shape of deposits or in that of notes it must have in its vaults

forms of property the value of which offsets the liabilities represented by such credit. In the absence of legal restriction, any form of property normally acceptable as an investment to the bank would be considered as satisfactory cover for either deposits or notes. But the law may set up certain standards of investment for each kind of credit, and in this case the transformation of credit from deposits into notes could be effected only if the investments acceptable as cover for notes could be quickly obtained in adequate quantities. If the law demands as cover for the notes special forms of investments, especially if such investments are not those entering normally into the routine business of the bank, the bank may find that, when the demand for bank credit shifts from deposits to notes, the special forms of cover legally required for notes may not be obtainable in quantities or on terms that will permit adequate note issue. Our own national bank notes supply a case in point. These notes are based on government bonds. But government bonds enter but slightly into a bank's normal operations. Hence when a bank in the past wished to issue more notes it had to go out into the market and make special efforts to get more bonds. The bonds might, however, be unavailable on satisfactory terms, and the notes would not then be issued. By far the simplest and most certain expedient in the attainment of adequate intertransformability is to be found, therefore, in permitting a bank to use as cover for both deposits and notes a sufficiently large proportion of its normal banking assets. Full asset banking is not necessary, because it is hardly conceivable that there would be a complete shifting of demand from deposits to notes, but the proportion of normal assets that is made acceptable as cover for notes must be sufficiently large to take care of whatever demand for notes might arise.

Summary

Summing up the contents of this chapter it may then be said that the question of mobility and elasticity of credit, in so far as changes in place and in time demand are con-

cerned, is primarily a question of reserves. The more nearly reserves are centralized the more freely does bank credit tend to flow. In any case a bank feeling pressure on its reserves must, through the possibility of lending or rediscounting, be able to strengthen them. Owing to the nature of a bank's activities rediscounting is held to be the most approved method of strengthening reserves, and for this purpose, with or without centralized reserves, an open discount market is highly desirable. Lastly, in order to insure free interchangeability of deposits and notes a considerable proportion of the bank's normal assets must be legally acceptable cover for both these forms of its credit.

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CHAPTER IX

THE PROTECTION OF THE RESERVES

The protection of the reserves may also be regarded as a question of safeguarding the credit that is based on reserves. Whatever the angle from which it is viewed, however, the essential element involved in the question is the maintenance of proper relations between reserves and liabilities.

Question one of relation between reserves and liabilities

There are many interesting aspects of this question, but the important aspects may, according to the fields in which they arise, be classified under the headings "national" and "international."

National and international aspects to be considered

Nationally the main questions of interest arising in connection with protection of reserves may be briefly stated as follows: What is the absolute importance of credit in the nation's economic life? What are the circumstances determining the proportion of the total money supply available for reserve purposes? And, lastly, what methods may be employed duly to limit the credit liabilities resting on available reserves? These may be considered in turn.

The national aspects

The absolute importance of credit in a country and the proportion of a country's money supply that will be available for reserve purposes involve certain common factors. The first of these is habit and tradition with respect to the use of bank credit and the use of hand to hand money. The importance of habit in this connection is obvious, and was discussed in a similar connection before. Such habits are not easily controlled or changed, and while they may be rationally explained, at any given moment they must be accepted as ultimate facts. Another factor is the organization of a country's economic life. Advanced

Absolute importance of credit and the proportion of total money available for reserve purposes

Habit and tradition

Organization of economic life

technical development, large scale production and marketing, and large and intricately organized business units necessitate a complex credit organization, with much dependence on credit media absolutely and relatively as compared with money.

Organization of money and banking system

A third factor is the organization of a country's monetary and banking system. With respect to the money system the question involved from the purely national point of view is not so much one of the standard that is chosen as it is of the amount, character, and relation to the standard money of the other kinds of money put into circulation. In other words, the question is: What kinds of money are legally acceptable for reserve purposes and how is this money issued and controlled? Through the manipulation of its money system a government may restrain or inflate credit, preserve it or press it to destruction.

The proper organization of the banking system is quite clearly of great significance in this connection. The more closely the units of the system are knit together, the more thoroughly is their position safeguarded; while, the greater the degree to which the public interest is emphasized, the more efficiently will the system function, and the more widespread and thorough will be the dependence that is placed upon it.

Due limitation of credit an involved question

The due limitation of credit liabilities resting on reserves is itself a complicated matter. It depends, in the first place, upon the percentage of reserves necessary for the maintenance of confidence in credit. This, as has been seen, cannot be determined *à priori*. The reserve requirement can be arrived at with accuracy only by experience, and it varies with time and with place. But, whatever the varying requirement may be, credit safety demands that it be religiously observed.

Importance of factors determining elasticity

The proper limitation of credit liabilities resting on reserves depends also on the factors determining the elasticity of credit in a country.

Just what is meant by elasticity of credit was shown in a previous chapter, and the great importance of such elasticity was also set forth. In general it was indicated that in the absence of legal restriction the expansion of both forms of bank credit responds readily to demand. Moreover, it was shown that well organized local and inter-community clearings supply a check on the excessive expansion of credit by a single bank in a community as against all its neighbors in the clearing house, and by all the banks of one community as against the banks in other communities. In like manner reference was made to the fact that international clearings tend also to limit the expansion of credit of a nation as against other nations with which the country concerned has, directly or indirectly, intimate financial relations. But the differences between domestic and international trade are from many viewpoints so serious that safe reliance cannot be placed on an automatic checking of credit inflation through international clearings. The main difficulty to be emphasized is that such automatic readjustment results only from a fundamental weakening of reserves through the exportation of gold. Expansion of credit should be restrained before inflation stimulates gold exports. Finally, it will be recalled that, from the point of view of contraction, the difference between notes and deposits is such as usually to require special pressure on the notes to insure prompt redemption.

These factors were previously discussed

The factors underlying elasticity of bank credit in a country were also sufficiently elucidated. On the one hand there must be considered business methods and customs, banking development and practice, and banking organization. On the other hand there is involved the question of the public regulation of banking. The business factors may be adequate but their useful influence may be interfered with by unwise legislation. Conversely, business practice may be bad notwithstanding a wise public policy with respect to banking. The situation as a whole ought,

of course, to be such that a healthy expansion of credit follows an increase of demand, but inflation must be guarded against and contraction must be insured when demand falls off.

International readjustment of credit not a reliance in the control of the domestic situation

In connection with the maintenance of a proper relation between ultimate reserves and the credit superimposed upon them over the country as a whole, not much can be expected of international rearrangements of credit. The importance of an open discount market to the individual bank desiring to strengthen its position, or of facilities for rediscounting some of the paper in its portfolio, was previously discussed. Such agencies are equally important to the banks of a whole community as elements in a wider national system. But international rediscounting, while possible and important, as will be seen subsequently, can, for the benefit of the banking of the country as a whole, at best operate only within narrow limits. There is no international centralization of reserves that permits an easy shifting of balances between nations, and the volume of internationally discountable paper in any one country is not likely to be large enough, or distributed with sufficient uniformity, to assure the possibility of adequate credit readjustments. Consequently, serious readjustments in the international market usually require shipments of bullion.

Direct additions to money reserves unreliable

Direct additions to the reserves themselves are also practically out of the question. In times of credit inflation gold tends to move out of rather than into a country. It is only when the bubble has been pricked that any stimulus to gold imports is given. Moreover, even though a country have gold mines of its own, fluctuations in the output of the mines will have no necessary relation to changes in credit needs. Similarly, the general circulation, however heavy the proportion of gold in it may be, cannot be reliably depended upon as a source of gold for reserves. If the credit situation is such that banks have to retrench, and feel the need of strengthening their reserves, the general public will be inclined to withdraw gold from,

rather than bring it to, the banks.[1] On the whole, therefore, it may be said that the proper control of credit requires the adjustment of credit to reserves rather than the adjustment of reserves to credit.

Arbitrary control of credit is needed in last analysis

Taking the country as a whole, however, final limitation of credit is possible only with arbitrary control. Internally, as was seen, if a country has a well organized system of local and intercommunity clearings, expansion of credit tends to be automatically controlled. But internationally the process of clearing acts as an automatic check only clumsily and expensively. Hence to prevent the national expansion of credit up to the point where the clumsy international check begins to operate some authority must be provided which can effectively control the situation. What is involved in such control may be more fully set forth subsequently.

Thoroughgoing centralization supplies the best means of control

Considering simply the domestic factors involved in the safeguarding of reserves no more desirable means of attaining that end can be devised than thoroughgoing centralization. The economy of centralized reserves was discussed in a previous chapter. Only through centralization of reserves can an effective readjustment of credit be made in response to the varying changes in demand from place to place and from time to time, and in the shifting of demand from one form to another. But the point that it is desired to emphasize here is that under a system of centralized reserves the total expansion of credit can be duly controlled. Where reserves are centralized the agency in control of reserves dictates in last analysis the terms on which credit may be extended. Hence, under any general policy of domestic expansion the central reserve au-

[1] The European banks during the Great War succeeded in obtaining from private hoards large quantities of gold. The issue of one-pound and of ten-shilling notes in England helped greatly there. In the other countries appeals to patriotism were made. These incidents are obviously abnormal, however, and offer no support for the view that to meet normal exigencies withdrawals of gold from general circulation can be relied upon.

thority can through an increase of its own rates discourage the movement before it assumes dangerous proportions.

Control of credit by central reserve agency depends upon certain conditions

The restraining influence that the reserve-holding authority can bring to bear upon the general market depends, of course, upon a number of things. Reserves must be sufficiently centralized so that the outside market can never get very far in its expansion of credit without having recourse to the central authority. In other words, to employ the term that is usually relied upon in this connection, the official discount or loan rate of the central authority must be "effective." It may at times be just as important to have the official rate effective when the general market rate remains at too high a level, but ordinarily the significance of the effectiveness of the official rate is to be found in connection with the forcing up of the market rate when it is believed that this rate is at a level that encourages a relatively loose use of credit. When its rate either is or can be made "effective" the central reserve agency can nip in the bud any undesired credit expansion.

Circumstances cause difference in the degree of effective control

An effective official rate follows almost as a matter of course from highly centralized reserves, but there tend to be differences of degree between different countries according to the relative emphasis placed in practice upon notes and upon deposits, and according to the legal limitations that may be placed upon the extension of credit in the several forms. Under a monopolistic system of note issue in a country where chief dependence is placed upon notes as against deposits no serious movement of credit expansion can get under way without the coöperation of the central bank of issue. The central bank can in such cases, therefore, quickly stifle untoward inflation. On the other hand, if notes are relatively unimportant, and if there be no special reserve requirements for deposits, as is the case in England, then there can be considerable fluctuations of outstanding credit with the central bank unable to interfere. There are times when the Bank of England wishes

to make its rate effective that the bank finds it necessary to employ a broker to borrow in the market, thus absorbing credit until the "bank rate" prevails.

Moral influence important

Finally, it must be mentioned that under centralized reserves the position of the reserve agency is such as to enable it to exercise a strong moral influence in the credit market. The prestige that naturally attaches to the control of a country's bank reserves makes the reserve-holding agency the natural leader of the money market. This prestige is normally heightened by the fact that the great reserve-holding banks of the world are more or less closely associated with their respective national governments. They are not only the government bankers, but their whole business is more or less under government supervision. The result is that mere suggestions of the responsible officers of the big central banks take on the color of authority, and it is thus often possible for them to control credit development without active interference in the market.

The international factors largely concern gold movements

The international factors alluded to above as involved in the protection of the reserves have to do in the main with gold movements.[1] Exports of gold must, if necessary, be discouraged while at times a positive stimulus must be given to gold imports.

The possibility of restraining or of preventing gold exports depends naturally upon the way in which the gold reserves are managed. In the chapter dealing with inter-

[1] The money in general circulation within a country may be silver or even paper, and all such money may be lawful money for reserve purposes for the banks. But under a gold-standard system this money must be kept at a parity with gold and in the international exchange market this means that gold or a satisfactory equivalent must be freely supplied whenever the situation demands it. The readjustments of the relative values of the money of several countries, when these values vary by an amount exceeding the cost of shipping bullion, come, as was seen in the chapter on "International Clearing" only as a result of sending that which is supposed to be the connecting medium between the different moneys, namely gold bullion itself. That which is legal money in one country enjoys in most cases no legal status in another country.

Restriction of gold exports depends upon management of gold reserves

national clearings the circumstances giving rise to gold movements were fully set forth. The normal movements of gold in international exchange result from the desire of exchange dealers to earn a profit. Variations in the exchange rates from mint par imply differences in the money-purchasing power of gold bullion in the countries concerned. If these differences are great enough to cover all the charges involved gold tends to move. Hence under a system of decentralized reserves, with the gold directly or indirectly in the hands of numerous banks, each bank will pursue a policy that is dictated almost exclusively by its own individual interests. Comparatively little consideration will or can be given by individual banks to the needs of the general situation. In times of serious emergency, when each bank is likely to fear the effect on itself of a general unsettlement of confidence, common action through clearing houses or through special associations may present the only means of salvation. But such coöperative action is only remedial. What is needed is a preventive control so that the necessity for remedies and palliatives rarely arises. It may therefore be said, that, since under a system of scattered reserves no uniform policy with respect to gold movements can in normal times be expected from disconnected banks, because of the more or less regular conflict of interests between them, and, since such uniformity of action that may be imposed in times of strain is at best only remedial rather than preventive in nature, an adequate control of gold exports is to be expected only under a system involving a high degree of reserve centralization.

Scattered reserves permit but little regard for the general situation

Adequate control possible only with centralized reserves

Available expedients for checking exports

Experience has taught that there are several ways of checking gold exports.[1] The applicability of the different means depends, of course, upon favorable collateral circumstances, but in general it may be said that they relate in first instance to the movement of the metal itself, while

[1] The discussion assumes the gold standard for the monetary systems.

in the second place they have to do with the circumstances underlying the movement.

Charging a premium for gold

Since gold that is wanted for export must normally be obtained through the redemption of other forms of currency it may be possible to charge a premium for gold sufficiently large to add materially to the cost of exportation, but, on the other hand, not large enough seriously to raise the question of the maintenance of the gold basis of the currency system. The rigid maintenance of the gold basis requires in last analysis unobstructed redemption in gold of all the different kinds of money or currency supposed to be circulating at par with gold, but slight compromises may occasionally be made with the strict requirements of theory when practical exigencies seem to demand them. Redemption of the domestic currency in gold is important chiefly in the field of international exchange, but the maintenance of adequate gold reserves at home is essential to the maintenance of confidence in the domestic money and banking system. Hence in the interest of greater monetary security at home it may be wise to sacrifice to some extent in international affairs the advantage to be derived from a uniformly maintained value in gold of the money unit. Thus England, France, and Germany have all interfered with the normal flow of gold during the Great War in order to protect the money and credit structure at home.

Implication of the premium expedient

The charging of a premium on redemption in gold assumes, however, the possibility of an alternative means of redemption freely available to the redeeming agency. If gold alone could be legally used for redemption then any attempt to charge a premium for it would involve the open abandonment of the gold basis of the currency. But if, for example, both gold and silver coin may be used in redeeming credit or currency, then when gold is desired for export the redeeming agency may elect to pay in silver coin, and may consent to pay gold only when a premium for gold is offered. In France and in the United States

the silver coins that are issued in terms of the standard unit are full legal tender and are not themselves further redeemable. Bank of France notes are redeemable in both silver and gold. In the United States the national bank notes are redeemable in "lawful money" which includes all the money issued by the government. The federal reserve notes, although issued in the name of the government, are issued through the federal reserve banks and these notes are specifically redeemable in gold. In the United States gold for export is normally obtained through the redemption of gold certificates, but in France the bank notes are relied upon. Moreover, in the United States our banking system has hitherto not been organized in a way to provide for any centralized responsibility with respect to gold reserves. But in France the Bank of France has at times chosen to redeem its notes in silver, and has either charged a premium for gold or refused it altogether. Obviously, the administration of such an expedient must be handled with the greatest care, but when so handled it may at times prove serviceable.

Obstacles may be thrown in the way of getting gold

In the absence of the possibility of charging a premium on gold a somewhat cruder realization of the same end may be attained through the throwing of obstacles of one form or another in the way of those desiring to obtain gold for export. Thus it has been authoritatively pointed out that the Bank of England maintains a "gold export corner" into which are gathered all the light-weight sovereigns that come within the legal limit of tolerance. When there is a demand for gold for export the gold is supplied from this corner, and, as in international shipments the coins are rated only on the basis of their actual bullion content, the difference between bullion value and money value may be sufficiently great to act as a check to exportation. In Germany the notes of the Reichsbank are normally freely redeemed at its branches, but there have been times when the Reichsbank has availed itself of its legal privilege to redeem at par only at Berlin, requiring

the exporter to pay the cost of shipping the bullion from Berlin to Hamburg or Bremen as the case might be. Finally, where reserves are centralized under the control of a big central bank of issue, such a bank may through its natural position of leadership bring effective moral pressure to bear on the market. Thus it is said that a hint from the Reichsbank is all that is needed at times to check the exporters from seeking profit through gold exportation. But in the utilization of means of the character here suggested, just as in the case of a possible premium on gold in redemption, the most conservative practice must obtain lest the whole system come into disrepute.

Much more satisfactory than the methods already referred to for the checking of gold exports is the wholesome economic expedient of making it relatively unprofitable to export gold. This object may be attained by increasing the relative value of gold bullion in the home country through the effective enhancement of the value of home funds. This requires a further word of elucidation.

Gold exports may be made unprofitable

When a country has gold as the standard of its money system, with the necessary free coinage of gold under this system, gold has always in that country a fixed purchasing power in terms of money. Thus in the United States the money-price of 23.22 grains of gold is always one dollar. Hence, as explained in a previous chapter, when in the international market the relative value of money funds, as expressed in the exchange rate, varies by an amount exceeding the cost of transporting bullion, gold moves from the market where the money is relatively less valuable to that where it is more valuable. The value of money, simply as money, in a country may be expressed in terms of percentages of money itself or in terms of goods. There would of course be no point in offering presently available money-funds against other such funds, but we have as a regular thing in the "money market" the offering of future money-funds against those presently available.[1] The rate

Domestic funds may be enhanced in value

[1] W. D. McLeod, *Theory and Practice of Banking*, Chap. I, p. 50.

at which the future funds are offered for the present funds is an indication of the value of the present funds. In other words, eliminating the question of risk, the rate of discount in a market reflects the value of present money funds in that market as compared with the value of future funds. The higher the discount rate the greater the return in the future that one can get for the surrender of his money in the present. On the other hand the lower the prices of goods the higher is the value of money. Hence the discount rate and the price level tend to vary in opposite directions.

Differences in discount rates indicate differences in value of money funds

A difference in the discount rates obtaining in two countries indicates, therefore, a difference in the value of presently available money-funds in such countries. This difference in value may or may not be reflected in the general price level, but this need not concern us here. Suffice it to say that with two countries on a gold standard, with full freedom of coinage of gold on the one hand, and free redemption in gold on the other, any difference in their respective discount rates tends to give a relatively higher value for gold as a means of purchasing money in the country with the higher rate than it has in the country with the lower rate. Of course, there may be offsetting circumstances, as was seen in the chapter dealing with international clearings, but, with other factors determining the exchange rates equal, the movement of the effective discount rates may itself suffice to carry the exchange rates outside of the limits indicated by the "gold points." The influence of the discount rate on the exchange rate grows out of the desire of international bankers to get the highest possible return on the funds that they advance. Their purchases of bills by means of which they effect the transfer of their funds to the markets where rates are high may lead, in the market where the discount rate is low, to the advance of the exchange rate to the gold export point. On the other hand, the raising of the discount rate in the market from which

gold exports are threatened may serve to prevent exchange rates from moving to the gold export point.[1]

Change in discount rate must be effective

Any change in the discount rate that is intended really to influence the foreign exchange rates must be "effective." That is to say, the rate proposed must be controlling in the market. If anywhere in the market present money-funds are available at rates below the proposed rate, purchasers or borrowers of funds will go to the seller asking the lower price. But when an enlargement of the supply of the domestic funds is possible only on the basis of the higher rate, then it may be said that the value of such funds has been effectively enhanced.

Foreign credits may be serviceable

Instead of thinly veiled interference with gold exports, and of the burdensome enhancement of the value of domestic funds, it is possible to employ a serviceable substitute. A supply of foreign credits may be kept on hand against which bills can be sold whenever the exchange rate advances to the gold export point.

Foreign credits as good as gold for exchange purposes

Such a supply of foreign credits is for international exchange purposes quite as effective as gold at home available for export. As already indicated, gold shipments are made by international bankers for one purpose only—the establishment of credits in terms of the money of the country to which the gold is sent. Hence, if the agency in ultimate control of the gold reserves is enabled to maintain balances in foreign countries, bills drawn against such balances may be thrown on the market to increase the supply of exchange when the rate reaches the gold export point. With a proper management of the reserves at home there is no objection to counting such foreign

[1] "It is the foreign exchanges that regulate the outflow or influx of gold, and foreign exchanges can only be regulated by the value of money."—Sir Felix Schuster, the Governor of the Union of London, and Smith's Bank, in Publications of National Monetary Commission, Vol. 1, p. 51. "The whole essence of it is to increase the cost to the man who wants to take the gold up to the point when he has to say: 'I must do something else.'"—Mr. Charles Gow of the London Joint Stock Bank in Publications of National Monetary Commission, Vol. 1, p. 90.

balances as a part of the domestic reserves, since redemption at home in normal times is incidental to the need of gold for export purposes. If this need can be met in some other way the home reserve demand is correspondingly diminished. Moreover, such foreign credits may in times of emergency be augmented by special loans, and changing necessities may be taken care of through arbitrage operations. The administration of such credits involves some delicate questions, but they have no bearing upon the fundamental principle and may be waived here. Assuming such difficulties to be properly handled, the fact remains, as demonstrated by the experience of some of the central banks of the continent, that foreign credits are at times very effective substitutes for gold reserves at home.

Gold imports sometimes needed

There are times, however, when power to restrict gold exports is not of itself adequate. Under certain exigencies, as for example when more gold is needed to sustain confidence at home, it becomes necessary actually to import gold. Experience has demonstrated that gold imports may be stimulated in several ways.

Gold may be purchased

The simplest way of getting gold is of course to go in the world market and buy it outright at whatever price in domestic funds may be necessary to obtain it. Assuming, as before, the gold standard in a country, the mint price of gold cannot of course be changed, but in view of the disproportionate strengthening of bank reserves by the positive addition of gold—just as there is a disproportionate weakening through the actual withdrawal of gold—it is possible and may be profitable to offer a price in bank funds beyond the price that is fixed by the coinage law, or at least beyond the price which, all things considered, is held to represent the par in the money market. In normal times gold is regularly auctioned each Monday in London. The mint price for gold is £3 17s. 10½d. per ounce. The Bank of England is required to give its notes, however, at the rate of £3 17s. 9d. per ounce. The dif-

ference is supposed to be an offset for the waiting that would be necessary if the owner of gold desired to have his bullion converted into coin on his own account at the mint. Representatives of foreign banks oftentimes bid higher than the accepted legal rate, and, if the Bank of England wishes to retain the gold, it must outbid the competitors in the market. It will be seen that this method involves, to the extent of the premium, the sacrifice of domestic funds for the benefit of the foreigner, but the strengthening of reserves and the buttressing of confidence at home would, of course, be cheaply bought with such a sacrifice.

Other expedients may be employed

Furthermore, some of the means that are normally employed in checking gold exports may be applied with sufficient rigor to stimulate an actual inflow of gold. There may be, for example, a direct loan of gold instead merely of a loan of foreign credits against which bills of exchange may be sold. Or if there be substantial foreign credits these may be directly drawn down in gold, or bills drawn against them may be offered in such volume that the market rate for foreign exchange drops below the gold import point. In like manner the value of domestic funds in the world market may be enhanced to such a degree that those with available resources will desire to profit thereby and will lend such sums as they can command. Such an enhancement might be brought about, as already explained, through the effective increase of the discount rate. Of course, the relative enhancement of the value of domestic funds is involved in the sacrifice of foreign credits on the domestic market, but the consequences are not the same in both instances. Raising the value of funds at home does not imply the same sacrifice that is inevitable in the wholesale dumping of foreign funds. Where the reserve and the credit system are not adequately managed and controlled it "is the dumping" expedient that must be mainly relied upon. In New York, during the panic of 1907, the bottom dropped out of the

foreign exchange market. So great was the demand for funds at home that foreign bills were almost unsalable at any price.

Prevention better than cure

As in many other departments of human endeavor, however, the "ounce of prevention," in this problem of international gold movements, is often worth more than the "pound of cure." There are of course some movements of gold which are perfectly normal and unavoidable, but there are other movements which are induced by conditions, which, had they been understood and foreseen, might have been altered. Wherever the exportation of gold results from excessive credit expansion at home, such exportation might have been prevented by the seasonable restriction of credit.

Inflation as a cause of gold exports is preventable

While there is some difference of opinion as to the exact manner in which credit inflation leads to exportation of gold no such difference exists as to the fact itself. The expansion of credit may lead to a depression of the discount rate in the domestic market, and this may lead bankers to wish to transfer their loanable resources to more profitable markets. Or such credit expansion may lead to an inflation of domestic prices upsetting the normal relation between exports and imports both of commodities and of securities. In either case, or in both cases, the resulting tendency is pressure on the demand side in the foreign exchange market with the possible outcome of an advance in rates to the gold export point.

Credit may be extended to foreigners

With the entrance of America into the arena of world finance another somewhat more subtle form of credit extension deserves mention. This involves extension of credit to the foreigner. To the extent that financial operations in the markets of the world may be transacted in terms of the money of any given country, as was largely the case before the Great War in the almost universal employment of the pound sterling, banking institutions in such a country may, through the acceptance and discounting of bills of exchange, give foreign borrowers heavy

claims in domestic funds. Such funds ultimately redeemable in gold may be used by the foreigner to withdraw gold from the country where the funds originated, and such withdrawals might in turn seriously embarrass that country's domestic markets.

This can be prevented

It was pointed out above that under adequate management of centralized reserves, undue expansion of credit at home can be successfully forestalled. Similarly, under such a system, excessive credit extension to the foreigner can be prevented. The reserve-holding bank, being in last analysis the arbiter of credit, has means of keeping itself informed as to conditions in the market. If "finance bills"—which are the media normally relied upon in the extension of credit to foreigners—appear in threatening volume, the central bank can adopt whatever expedients may be requisite to limit their supply. In England a mere hint from the Bank of England has been all that was needed, but where such delicate expedients are not adequate, there is always the possibility of effectively raising the discount rate. This hits the home borrower as well as the foreigner, but that is one of the costs that must be borne when a country becomes a world-wide supplier of funds. The foreigner's borrowings quickly diminish as the discount rate advances, and his ability to weaken the home market through the withdrawal of gold naturally diminishes in equal degree.

Limitations of dependence on discount method

Nationally and internationally, therefore, the ability effectively to control the discount rate is a powerful weapon in the protection of the ultimate reserves. Yet it is necessary to observe the limitations which characterize it. An increase in the discount rate is a tax on the home borrower. It is effective only when it enhances the value of funds in the domestic market and that means that every individual obtaining funds in such a market pays a higher price than he would have paid had there been no increase in rate. From the immediate borrower or purchaser of funds the burden tends to be shifted to the

ultimate consumer, although the exact distribution of the burden can never be accurately ascertained. In general, it means in the end a higher cost of production and a higher cost of living. Of course the higher cost also hits the foreigner borrowing in the domestic market, but he is bearing in any event only a small part of the total burden.

Foreigner must be appealed to on basis of profit or home nation must be creditor

Furthermore, increasing the discount rate can prevent gold exports only under two conditions, viz., first, when the foreign holder of domestic credits can be appealed to on the basis of profit, or, secondly, when the home country is a lending country and can dictate the terms on which it will lend. If the foreign holder of domestic credits chooses to redeem his credit in gold and to have the gold shipped to him nothing short of arbitrary interference can stop him. But if the withdrawal of gold proceeds, as it normally does, simply on the basis of higher profit elsewhere, through a readjustment of the possible profits, the withdrawal may be prevented. Similarly, if a given country is, on the balance of international transactions, the debtor, and if the ultimate creditors insist upon final payment, no amount of tinkering with the discount rate can prevent the exportation of so much bullion as is necessary to settle the debt. But if the country considered is a lending country its position is different. It can, as a lender, dictate the terms on which it will lend, or it may refuse to lend altogether. Owing to the limitations of the discount method of reserve control most countries have to couple with it other means of protection. Most of the central banks of the continent keep a considerable portfolio of foreign bills and make arrangements for loans of gold or of credit, while at the same time they may throw obstacles in the way of gold exports.

European banks sometimes employ supplementary expedients

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CHAPTER X

REQUIREMENTS OF A GOOD BANKING SYSTEM

National organization of banking desirable

The peculiar function and the great importance of commercial banking render highly desirable if not absolutely essential its organization on a national scale. In its operation this form of banking constitutes a part of the national money system. Checks drawn on banks in Maine are used to pay bills in California. Bank notes circulate side by side with the standard money issued by the government. The unsettling of confidence in any given locality reacts upon the whole credit structure, and through credit on the entire system of production. The organization of a country's banking system as a whole is, therefore, a subject that transcends in importance that of the unrelated activities of individual banks.

World organization conceivable but improbable

Writers with imagination have referred at times to a world organization of credit. Where one's outlook is sufficiently cosmopolitan the possible benefits of a world-wide system are obvious. But the heterogeneity of the world's peoples, the differences in their economic activities, and the diversity in their points of view, render useless any consideration of a world banking system. The economic life of today and the system of exchange involved in it are based almost exclusively on ultra-nationalistic conceptions. A brief consideration of the opposing interests and ideals which underlie the Great War suffices to disclose the truth of this proposition.

National organization not so important in the field of savings and of investment banking

While much may be said concerning the need of national organization of commercial or credit banking, the need of such organization in the fields of investment and savings banking is not equally pressing. Bank credit in its

normal manifestations appears as a medium of national use, but the major portion of the locally collected investment funds in the hands of savings and of purely investment banks are locally utilized. That portion which is not locally applied tends to be mobilized in the great security markets.

The existence of such markets assures a satisfactory apportionment of the available investment funds. Rates charged for purely local investment purposes, as, for example, for real estate mortgages, may vary considerably from section to section; and in special fields, like farm-loan mortgages, it may also be necessary to organize investment banking on a national scale in order to mobilize funds over an adequately wide area, and to provide the standardized securities essential to such mobilization. But in the wider markets the securities dealt in may represent properties scattered over the whole country, while the funds appearing for investment are sent in from every quarter. The only questions that are raised concern safety and earnings. Hence the competition of seekers after funds, on the one hand, and of buyers of good and profitable investments, on the other, leads, other things equal, to substantial uniformity in rates, and, in consequence, to an apportionment of the available funds which promises maximum social advantage.

What conclusions may be drawn from previous discussion?

The earlier chapters of this book aimed to set forth the underlying principles of commercial banking as a possible basis for intelligent conclusions concerning the organization of this branch of banking over the country as a whole. Assuming in general the validity of the analysis there made, attention may be directed to the conclusions to be drawn.

Maximum advantages of bank credit the objective in a good system

The general object of a good banking system will be to provide for all the advantages and to guard against all the dangers inherent in bank credit. Owing to the fundamental importance of reserves to such instruments, this implies the availability for reserve purposes of a max-

Maximum proportion of funds available for reserves should find lodgment in reserves

imum proportion of reserve funds. Individuals with money available for deposit should be encouraged to "bank" such money, and in like manner the general dependence on banking instruments in carrying on exchange should be systematically encouraged. Such dependence on the banking facilities of the country is desirable for the government as well as for private individuals. The fiscal operations of the government should be carried on through the ordinary channels of trade. In most countries the government is the largest single business man, and "hoarding" by the government is as indefensible as is hoarding by private individuals. It would hardly seem necessary to make this special reference to governments were it not that for more than seventy years the United States government has maintained an independent treasury in which its current funds have been kept. The rule was relaxed somewhat in later years, but as will be seen in the chapter dealing with the Federal Reserve System, the utilization of the banking system by the Treasury Department is still permissive rather than mandatory.

Diffusion of credit facilities necessary

The widest possible dependence of the trade of the country on banking facilities implies corresponding diffusion of such facilities. Banks must be sufficiently numerous to enable the mass of people to have access to them, and the peculiar limitations of different classes of economic endeavor must be taken into account in arranging a basis on which the banking facilities will be extended. Under a system of branch-banking, for example, means are provided for the rapid provision of banking facilities as the need for them arises. But if for political reasons the system of branch-banking is condemned, then in providing the regulations for governing the local independent banks care must be taken to offer every inducement consistent with safety for the early establishment of banks in small communities. Similarly, where the nature of the economic occupation, as in agriculture, is such as to provide only inadequate forms of security for the extension

of bank credit, the effort must be made through the formation of coöperative societies or other agencies to buttress this security or so to transform it that it can be employed in adequate amounts to meet the needs of those concerned.

Elasticity the great desideratum

The great desideratum, after a general use of bank credit is assumed, is, of course, elasticity. Elasticity of bank credit implies in first instance the development of the two forms of such credit when and where each may be needed. The failure to permit this free development means a disparity in rates from place to place and unfortunate fluctuations from time to time in the same place. The result is a high average rate that unduly taxes the country's industry and commerce.

It depends first upon the adaptation of the banking system to the economic life of the nation

Broadly speaking, the fulfilment of this requirement of elasticity depends first of all upon the original adaptation of the banking system to the economic life of the community. All the economic and social factors which have been alluded to in connection with the absolute importance of bank credit, its embodiment in the several forms, the reserves necessary to establish it, *etc.*, must be carefully considered in the conscious ordering or reordering of a banking system. In other words, the banking superstructure must be adapted to the foundation on which it is to rest.

Assuming this, fluctuations in demand require mobility of reserves

Taking this for granted, however, the question resolves itself into one concerning the provisions to be made for meeting fluctuations in demand. Fluctuations in the absolute demand for bank credit from place to place require mobility of such credit, but as the extension of credit is a question primarily of underlying reserves, mobility of credit means mobility of reserves.

Mobilization of reserves essential to mobility

It has already been demonstrated that mobility of reserves can best be obtained through mobilization of reserves. It is, of course, possible under a system of scattered reserves finally to equalize "pressure" on reserves as a whole through voluntary interrelationships established by banks, or through dealings in the market, but

the more completely all the reserves are brought under one general management the more rapidly will readjustments be made, and the more uniform will be the rate. A dozen communities served by independent reservoirs may through a piping system connecting the reservoirs finally obtain uniform water pressure, notwithstanding differences between the communities in the consumption of water. But if the water in all the reservoirs were brought into one great reservoir there would never arise the necessity for equalizing the pressure between the communities. It would always be the same for all. The flow of credit as based on reserves constitutes an analogous case.

Changes in the demand for bank credit from time to time in any given place may, when the country as a whole is taken into account, be regarded as a situation involving constant readjustments of place demand. Providing an elastic system to meet the variation in place demand is therefore essentially the same as providing for the variations in demand from time to time in the same place. From whatever angle the question is approached, the higher the degree of reserve centralization the greater is the possibility of delicate adjustment of credit facilities to need. Mobilization of reserves would appear to be, therefore, one of the first requirements of a good banking system.

Mobilized reserves must be made accessible

It has been seen, however, that mobilized reserves to be effective must be accessible. Such accessibility involves for the individual bank the possibility on the one hand of obtaining, or on the other of transferring or liquidating, investments in adequate amounts to meet its changing needs. The several ways in which this might be done were set forth in a previous chapter. Here it may be said that the wider the possibilities in this respect the more efficiently will the banking system function. The outstanding advantages of an open discount market lead, of course, to an emphasis on this expedient, but it must be remembered that the creation of an open discount market depends upon the availability of the proper kinds of discounts,

and upon business customs and outlook that promote the utilization of such a market. Some of these factors are within government control while others are not. But in addition to a discount market there is the possibility of direct borrowing, with or without collateral, by the individual bank from other banks or from the reserve-holding authority. The freest possible arrangements here naturally assure the most rapid readjustments. A good system will therefore, with due allowance for safety, provide for the individual bank as many as possible means of access to centralized reserves.

Intertransformability must also be assured

But in addition to the variations in the absolute demand for bank credit there must be taken into account the variations in the relative demand for the two different forms. In a good banking system demand should be able to shift from one form to the other and should be met with a minimum of friction. In discussing this point before, attention was called to the fact that in general the transformation of note credit into deposit credit offers no difficulty. In times past the difficulty has been found in connection with the reverse transformation. This difficulty has grown out of the measures adopted to regulate and control note issue. Hence, as already indicated, the degree to which deposits can be readily converted into notes depends upon the regulation of note issue. Note issue is usually based either on a monopolistic system or on a system of competition. If the transformation of deposits into notes were alone to be taken into account there would be no occasion to put special emphasis upon either the monopolistic or the competitive system of note issue. The necessary transformability can be achieved under either system as long as the requisite collateral measures are provided. But in view of the importance of centralization of reserves in connection with other significant aspects of the banking system, that system of note issue should be provided which harmonizes most thoroughly with reserve centralization. This, as was seen, is a system of essentially

Difficulty in practice has been with notes

monopolistic control of note issue, not because there is any inherent virtue in monopolistic issue which renders it superior to competitive issue, but because competitive issue is incompatible with thorough-going reserve centralization.

Some of a bank's normal assets must be equally acceptable cover for notes as well as for deposits

But in this connection emphasis must again be placed on the necessity, under any system, of permitting at least a proportion of the normal, routine assets of the bank to serve as cover for notes as well as for deposits. This is of obvious importance to the independent bank of issue, but it is equally important under a system of monopolistic issue if the balances obtained through rediscounting, *etc.*, are to be freely drawn down in notes.

Over-expansion must be variously guarded against

A good banking system must also guard against over-expansion of credit. As set forth in the chapter dealing with this subject credit inflation may develop actively or passively.

Active over-expansion may be variously guarded against

Absolute limitations may be imposed

Active overexpansion may be guarded against in several ways. Absolute limits may be put on the amounts of credit that may be extended either in the form of deposits or in that of notes. The arbitrary limitation of deposit credits would present no serious difficulty under absolutely monopolistic banking conditions, but where there are numerous banks such a limitation would of necessity involve problems of apportionment, *etc.* Such maxima might moreover prove at times very embarrassing. As a matter of fact no country has ever attempted, for the banking system as a whole, to apply this expedient.

France is the only important country that has applied such a restriction even to note issue. In the field of note issue under a monopolistic system the imposition of an absolute maximum offers no difficulty, but the problem of apportionment would have to be solved under a competitive system of issue. Moreover, even here an absolute restriction would at times prove embarrassing. France avoided embarrassment only by hastily increasing the prescribed maximum whenever the actual circulation seriously approached it. Finally an absolute maximum does not touch

the real question of the relation of credit to underlying reserves.

Relative limitations are applicable

The extension of credit might also be checked through the imposition of what may be called relative limitations. It might be declared necessary, for example, to maintain a certain relation between credit extended and capital and surplus. Such a limitation could be applied either to a monopolistic or to a competitive system, to notes and to deposits, or to either form alone. As capital and surplus represent the final guarantee fund behind bank credit they might, taken together, be held a not unsuitable criterion for its regulation. But the guarantee that capital and surplus supply is one of ultimate solvency rather than of immediate redeemability. Security lying behind credit is, of course, of great importance, but the factor of first importance is that of available reserves. There are several examples in practice of the limitation of note issue on the basis of a specified relation to capital, but deposits have pretty generally escaped this limitation.

Capital and surplus as a criterion

Reserves may be prescribed

A more logical limitation, relative in character, is that which grows out of a prescription of reserves. This is familiar to all interested in the subject of banking in the United States, where reserves are prescribed for both deposits and notes. Abroad, this limitation is commonly applied to notes, but deposits escape it. While there is much to be said in favor of reserve prescriptions there is always the objection that a safe reserve is not a fixed thing, but rather something which has to be carefully determined in the light of circumstances. At one time a fixed reserve may be inadequate; at another it may constitute an unfortunate "dead-line" against needed further extension of credit.

Or investments

Still another relative limitation on credit expansion is to be found in connection with prescription of investments. The law may limit the kinds of "cover" that a bank may hold against its outstanding obligations. The extension of credit would then be limited to the volume of the available

investments. If, however, the prescription were narrow, flexibility of credit would be interfered with, while if the provisions were liberal their effectiveness in limiting credit would be slight. In the United States the law defines pretty narrowly the range of a bank's investments, behind both deposits and notes. In Europe it is the "cover" for the notes alone that is narrowly defined. But both here and abroad this particular class of restrictions aim to secure a careful selection of investments from the point of view of safety rather than from that of credit limitation.

The discount rate offers the best possibility

Considering all the fluctuating circumstances that bear on the problem of credit extension, the most wholesome control is that which is found in connection with the final determination of the rate. Given in a country an agency which can, in last analysis, dictate the terms on which credit can be extended, there then exists the possibility of intelligently holding credit expansion in check. Of course this assumes on the part of the regulating agency the requisite intelligence, understanding, and courage. But taking these for granted, a final effective control of discount and of loan rates renders superfluous the other limitations which are of necessity more or less arbitrary and rigid. In Germany a tax on notes issued in excess of a tax-free contingent is supposed to enhance the cost of issuing, and hence of obtaining notes as the outstanding issue increases. Under our new Federal Reserve System also taxation is relied upon under certain circumstances to enhance the cost of obtaining credit. Increasing rates have, of course, a chilling effect on inflationist ardor, but the determination of the rates ought to rest upon a careful consideration of all the germane circumstances, and should not be forced in one direction or another by rigid prescriptions in the law. This flexible control of discount and of loan rates, as already indicated, depends upon a high degree of centralization. A good banking system will therefore not overlook this aspect of centralized reserves.

Centralization important in this connection

Rapid redemption, it was seen, is the most effective guar-

antee against the passive development of overexpansion. The nature of the check was shown to be such that without any external pressure there is a strong tendency to get the check back to the bank on which it is drawn, and thus to redeem the credit which it represents. Where the employment of checks is widespread and where there is a thoroughgoing organization of domestic clearings this rapidity of redemption also acts as a considerable restraining force on individual banks and on the banks of whole communities. But the nature of the bank note, on the other hand, was seen to be such as usually to require some extraneous pressure to stimulate redemption.

Rapid redemption important in preventing passive development of overexpansion

In determining how best to bring pressure to bear on notes for the purpose of expediting redemption it must be borne in mind that there are two aspects of the problem: first, getting notes out of general circulation into the hands of the banks, and, second, getting them from receiving banks not banks of issue to the banks of issue.

Pressure must be exerted on notes

Getting notes out of circulation is not an easy matter. The success of the notes in first instance depends upon their broad acceptability. Hence no form of pressure can be exerted which would tend to lessen general acceptability. Therefore, apart from providing numerous redemption agencies, whatever be the original system of issue, it is difficult to see how pressure can be brought to bear on the noteholder.[1] The return of the notes is largely a matter of chance as based on the proportion which the bank notes constitute of the entire monetary circulation, and on the relative importance of note issue as compared with deposits. From this point of view, as

First in the field of circulation

[1] Notes might be made legal tender in all payments to banks, but not legal tender as between private individuals, while at the same time adequate reserves would be required and facilities for redemption be provided. But the necessary guarantees of redemption and reserves would themselves tend to make notes so generally acceptable that the restriction in the legal-tender powers of the notes would in normal times be ineffective as a stimulus to redemption.

well as from others, a progressive diminution in the importance of the bank note, both absolute and relative, is to be desired.

Then in connection with the banks

Assuming notes to have come into the hands of banks, however, pressure may be applied in several ways.

Under monopolistic system of issue

Under a monopolistic system of note issue banks may be required to turn in for redemption or for deposit all notes received. Such a requirement would, however, involve serious administrative difficulties. Notes newly obtained to meet possible increases in demand would have to be kept rigidly separated from the notes which have come from circulation. There would obviously be much waste in such a system. The requirement might, however, be simply that for local banks the notes of the bank of issue should not be available for reserve purposes. This, as will be seen, is the form of pressure relied upon in our new Federal Reserve System in forcing member banks to deposit in their respective reserve banks all federal reserve notes received. But the objection to this expedient is that it militates against thoroughgoing reserve centralization, in that the local bânk could not profitably carry "dead" till-money when through redemption it could obtain money in forms available for reserve purposes. The seriousness of this objection depends upon the extent to which bank notes are likely to influence the credit situation as a whole. If the notes are a relatively small factor in the whole system, and if at the same time till-money requirements are small, the loss in economy will not be great. Some loss would, however, appear to be unavoidable, and as a practical question the loss due to this partial rigidity of reserves must be weighed against the need of enforcing redemption of note issue.

Under the competitive system

Under a competitive system of note issue the all-sufficient requirement is the prohibition against carrying in any bank as a part of reserves the notes of any other bank. Where all the banks are banks of issue there will then be the same incentive to send bank notes for redemption as

there is for the sending back of checks. In Canada the chartered banks daily "clear" their notes in just the same way that they do their checks. On the other hand, where only a proportion of the banks are banks of issue, non-issuing banks would not retain any greater amount of notes of the issuing banks than they expected immediately to pay out again, or, in other words, than such amount for which a real demand existed. The incompatibility of competitive note issue and thorough-going centralization of reserves, however, throws the argument against competitive issue from the outset.

Domestic clearing must be carefully organized

In view of the importance of clearing in the economical operation of the banking system it may also be said that in a good system intelligent provision will be made for the widest possible application of the clearing principle in domestic trade. In the purely local exchanges the local clearing houses supply an effective instrument for this purpose. In intercommunity clearings, however, wider organization is necessary. Machinery must be provided to facilitate the verification and the collection of individual items, while the system of remittance must also be arranged. The possibilities in this direction were discussed in the special chapter dealing with this subject, but here again the effectiveness of centralized reserves is to be emphasized. The more thoroughly reserves are centralized the simpler is the task of clearing. The machinery for sending out individual items for verification and collection can be more efficiently designed under a system of centralized reserves, while at the same time the system of remitting for such items, through which the principle of clearing is brought into practical operation, can be made to resolve itself into a mere matter of bookkeeping.

The ideal in domestic clearings is of course collection and remittance at par between any two points in the same country without additional charge. The more nearly all the collections and remittances of the different communities in a country are brought together under one agency

the more extensively can that ideal be realized, because in the long run income must balance outgo. Some costs of administration must always be borne, but with a unified system these can be made a general charge, as in local clearing associations where uniform dues paid by the members cover all expenses, or a slight charge may be levied on the particular individuals concerned. With the relatively simple possibilities under a system of centralized reserves the total costs can be made much lower than under the cumbersome arrangements made necessary by scattered reserves. As any cost must in the end be borne by the public it is to the public interest to have a system which will reduce costs to the lowest levels.

Reserves at home must be protected

In the interest of adequate reserve protection at home a good banking system will also provide for the control of the national gold reserve in its relation to international transactions. In the chapter dealing with this subject it was pointed out that practically essential to this control is thoroughgoing centralization of reserves and final and effective control of the discount market. This assures not only the possibility of controlling credit development at home, with the object of properly safeguarding it, but also the possibility of influencing gold movements in international transactions where these are seen to have an important bearing on the domestic situation.

Agency in control of centralized reserves must have wide latitude in international exchange matters

But as changes in the domestic discount rates are themselves of great importance to the home market, the agency in final control of centralized reserves ought to have wide latitude in the utilization of other expedients less drastic in nature but possibly adequately effective within easily determined limits. As gold movements proceed from immediate possibilities of profit in the foreign exchange market, however complex be the economic forces focused in that market, through simple buying and selling operations the agency in control of the reserves may materially influence gold movements. It must therefore be liberally empowered to carry on foreign exchange dealings, to main-

tain balances abroad, to buy and sell, borrow and lend foreign exchange and gold itself with the view of getting the utmost out of the international possibilities before serious pressure is exerted at home.

Relation of banking to international trade must not be overlooked

Coupled with this question is that of the organization of the domestic banking system with a view to the proper financing of a country's foreign trade. The main factors in this go down deeper than the organization of the banking system, but in the discussion of this topic it was shown that questions of banking organization are involved in it. In so far as intelligent planning can bring it about the effort ought to be made, therefore, so to frame the home system that wide participation in international banking is made possible.

Security will be guaranteed

Finally, a good banking system will guarantee security. The success of banking depends upon the maintenance of general confidence, and the organization and operation of the system ought to be such as to stimulate and to preserve such confidence. Owing to public faith in the government a considerable supervision of banking by the government is desirable. Indeed, as already stated, the effect of governmental supervision of banking on the confidence of the public is believed by some authorities to be a conclusive argument in favor of such supervision. The nature and scope of governmental control is, however, a political rather than an economic question. In general, however, it may be said that a country's banking system must harmonize with the general social and political organization of the country. A system that works well in one country will not necessarily work well elsewhere. Furthermore, owing to the shifting nature of confidence and to the rapid changes in the practical world of business, governmental supervision ought to emphasize and enforce individual honesty and responsibility, rather than to prescribe methods, reserves, investments, *etc.* Attempts to lay down rules of procedure for every possible contingency are often seriously embarrassing. The banking system must be kept as flexible as possible.

This is largely a question of proper governmental supervision

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CHAPTER XI

BANKING IN ENGLAND, FRANCE, AND GERMANY

In the previous chapter the essentials of a good banking system were indicated. It will therefore be of interest to survey comparatively the systems in the foremost three countries of Europe in order to learn by what means in practice they realize the desired ends. *Object of chapter*

Examining first the general structure of the banking systems of the three countries here considered, it may be said that all are organized on the central bank principle. In England the head of the system is the Bank of England. This famous old bank was founded in 1694 and grew out of a government loan. Its present charter dates from the Peel Act of 1844, under which, on one year's notice and on repayment by the government of any government debt held by the bank, the charter may be annulled. At the head of the French system is the Banque de France, founded in 1800 by Napoleon. Its present charter was granted in 1897 and expires in 1920. The charter will, of course, be renewed, although heavier obligations of a fiscal nature may be imposed on the bank. The German central bank is the Reichsbank. At the time of the formation of the German Empire the Bank of Prussia was taken over at a good price by the imperial government, and was reconstituted as the imperial central bank. Its original charter expired in 1891 but was made renewable at ten-year intervals. The last renewal was in 1909 and extends to 1920. *General structure of banking systems* *Bank of England* *Bank of France* *The Reichsbank*

These three central banks are all privately owned, although in their management they are more or less intimately under governmental influence. The Bank of Eng- *Relation between central banks and governments*

England

land is outwardly managed entirely by its owners through the elected board of directors, but it is intimately in touch with the government even in normal times, and, as Hartley Withers tells us, there is a general confidence that if necessary the government will always stand behind the bank. In France the governor and the two deputy governors of the Banque de France are government appointees, although the governing board of 15 *régents* is elected by the shareholders. Government control is much more comprehensive in the case of the Reichsbank. The German imperial bank has boards, known respectively as the *Curatorium*, the *Direktorium*, and the *Central Ausschuss*. The *Curatorium* is a kind of supreme supervising body of five members appointed by the government. The *Direktorium* is the active board of management, the members of which are also appointed by the government, and for life. The *Central Ausschuss* is a stockholders' advisory committee with few direct powers but not without considerable influence in the practical conduct of affairs.

France

Germany

Branches

The three central banks are also organized on the branch basis. The Bank of England has two branches in London and nine in the "provinces." The Banque de France and the Reichsbank have main and sub-branches and agencies scattered all over their respective countries. The main branches enjoy some independence, but in all important matters they are under the control of the head office.

Nature of business

The Bank of England, the Banque de France, and the Reichsbank are all the holders of the national reserves, and are thus primarily banks of bankers. This is less true of England than of the other countries, because all the larger banks in England carry some cash reserves of their own, while some of the country bankers carry accounts with large metropolitan joint stock banks rather than with the Bank of England. But while they are primarily banks of bankers, these central banks have also their own private clients, and they come, therefore, in some

Banks of bankers

Private clients

degree into competition with other banks in the market. This competition is traditional in England. All three banks are also note-issuing banks with practically monopolistic powers. All do a discounting and lending business, while the Banque de France and the Reichsbank also engage in security brokerage and syndicate operations.

Note issue and other operations

Under the central banks in each country there are large incorporated banks known as "joint stock" banks, "crédit sociétés," and "gross banken." These are organized under general incorporation laws applicable to various kinds of business corporations. There is no special banking law. In Germany some of the incorporated banks were organized before 1870 under special charters granted by the states, but these are exceptional.

The incorporated credit banks

In all three countries the tendency in this field of banking is strongly toward centralization. Twelve or fourteen banks are said to control the situation in London. It is also stated that while there are almost five hundred incorporated banks in Germany, seven or eight "grossbanken" in Berlin do more than 50% of the business, while in France four big banks virtually monopolize the field. Each bank has of course numerous branches, while in some cases, more especially in Germany, apparently independent local banks are dominated by the big metropolitan institutions.

Tendency toward centralization

The business of the incorporated banks is mainly receiving deposits, discounting, and lending. In England the whole business of private finance is highly differentiated, but the joint stock banks are encroaching on the fields of the other agencies, namely the acceptance, the discount, and the foreign exchange houses. In France and Germany there has been little differentiation, and the incorporated banks undertake, besides the acceptance business, an extensive brokerage, syndicate, and foreign exchange business. The wide range of their activities has led now and then to complaint.

Nature of business

In all three countries there are also private bankers

Private bankers

doing business akin to that of the incorporated banks. Hartley Withers tells us that the private bankers are the aristocrats in the English money market, and that they are responsible for the splendid English banking traditions. They are the pioneers of modern banking, Childs' bank having been established in 1660 and Hoare's bank in 1684. Local private bankers are relatively numerous in France, where they carry on a discount business with Bank of France notes. But everywhere the private banker seems to be losing ground. Family businesses passing from father to son cannot stand up under the competition of efficiently managed corporations.

Other agencies

England

Merchant bankers and accepting firms

The other agencies involved in the banking systems of the three countries vary. As already indicated, the English system is characterized by a high degree of specialization. First may be mentioned the "merchant bankers" and accepting firms. These, according to Withers, are not bankers at all. Their business is to accept bills on commission, although this very function puts them in good position to handle outside loans in the English market.

Discount houses

Next are the "discount houses," somewhat like American "note brokers," who are primarily middlemen standing between the drawers of bills and the banks who are the ultimate purchasers. They are useful agents in helping to make credit mobile, but they are especially needed in England where the enormous volume of bills requires specialization in handling. They buy bills in wholesale quantities using for the purpose call loans with bills as collateral. Some of the large private firms themselves keep considerable quantities of bills. Private lenders often put funds on deposit with discount houses which pay interest on such deposits. On the other hand, when the bill market is not sufficiently attractive, or when the discount houses have excessive funds, they sometimes engage in syndicate operations or in lending on stock-exchange collateral.

Investment and finance houses

Lastly, reference may be made to the investment and finance houses of which there are a considerable number,

They are mainly investment bankers, but they also engage extensively in foreign exchange operations.

France and Germany

Germany and France show little specialization, although in the field of land credit and of coöperative credit they show a much higher organization than can be found in England. But besides the Reichsbank there are four banks of issue in Germany, namely, the banks of Saxony, of Bavaria, of Württemberg, and of Baden. Their notes, however, enjoy only local circulation and they are hardly a factor in the national situation. Most of the state governments in Germany have also state-owned and state-controlled banks like the Prussian "Königliche See Handlung." These banks accept some deposits and make some discounts, but they too are not of great significance in this field. They are primarily the fiscal agents of their respective governments. There are also some paper brokers in Germany and France, but their operations are not to be compared with those of the English discount houses. Similarly the small brokerage, the investment banking, and the foreign exchange business in Germany and in France is, as already indicated, mostly in the hands of the large commercial banks.

Elasticity of credit in Europe

Turning now to the operation of the European systems the first question that suggests itself is that of elasticity. From the viewpoint of credit expansion there may be considered first the system of discounts and of loans. In this connection attention will be given to the paper eligible and to the character of the loans.

The discount system

Paper eligible

At Bank of England

The Bank of England may determine without legal interference what is for its purposes acceptable paper. As a matter of fact the bank will buy only paper with two British names, one of which must be that of the acceptor. The maximum maturity of bills bought is usually four months, although in exceptional cases the bank may purchase six months bills. Down to the outbreak of the Great War the bank would buy only "domiciled" foreign bills, namely, bills accepted abroad, but made payable in pounds

sterling in England. The early strain of the war on almost every part of the English banking machinery forced the bank into a more liberal policy, however, and the new policy of buying foreign bills will probably survive.

At Bank of France

The Bank of France is governed in this matter by its charter and by its own statutes. It accepts only three name paper having not more than three months to run. Bills may be payable at any one of almost 500 places where the bank undertakes collections. Two name bills may be accepted if, as a substitute for the third name, there be deposited, as collateral, securities of the kind acceptable as a basis for loans, or warehouse receipts for goods. In every case, however, two of the required names must be French.

At the Reichsbank

The Reichsbank is permitted by law to accept only bills with at least two names and running not longer than three months. But foreign bills are acceptable and are regularly held in large quantities.

At the general market banks

The joint stock banks and the other agencies buying paper enjoy in all three countries the widest latitude. The most common forms of bills are bankers' acceptances, drawn by sellers on bankers acting as agents for buyers, and trade acceptances, drawn by a seller of goods and accepted by the buyer. They are both domestic and foreign. All such paper bears two names. Single name paper of the American variety is a negligible factor. There are, of course, differences in detail from country to country. In France and Germany unsecured acceptances known respectively as *credits à dècouvert* and *kredit blanco* are fairly common. In England acceptances by bankers and by the accepting firms are almost uniformly secured by negotiable securities. The tendency in all three countries, as credit becomes less and less personal, is toward a collateral requirement.

General procedure in the field of discounts

The general procedure in the field of discount is practically the same in all three countries. The central banks will discount only for those who carry proper accounts.

The German and French banks discount only at the official rate, but the Bank of England will buy paper at a private rate determined by market conditions, when, as Hartley Withers says, the Bank is not discounting officially as the head of the English money market. As the fiscal agents of their several governments the central banks also regularly make advances to the government. These advances are usually on the basis of treasury bills discounted in the ordinary way.

At the central banks

The large credit banks in the several countries make up the bulk of the supply side of the market. They also discount directly only for those having accounts, but they purchase bills in large quantities from discount houses, bill brokers and in some cases from each other. The rates at which they discount or purchase bills are fixed by competitive forces in the market. Such rates are not necessarily uniform throughout the country but the more complete the competition the greater is the tendency toward uniformity.

At the general market banks

Loans

At the central banks

The practice of the several central banks in the field of loans does not differ greatly, although the policy of the Reichsbank is perhaps a little more liberal than is that of the other two banks. The Bank of England is burdened with no legal restrictions but it lends in the main only on stock-exchange collateral. Occasionally loans are made on good unlisted securities, but mining stocks, whether listed or unlisted, are barred. The Reichsbank is authorized to lend on almost everything, real estate excepted. Loans on collateral are usually referred to as "Lombards." In France the law and the statutes of the Bank of France itself define what are acceptable securities for loan purposes. These are mainly bonds issued under governmental authority, state or local. The smallest *rentier* is privileged to avail himself of a Bank of France loan. The rate for loans at all three central banks is from ½% to 1% higher than the rate for choice discounts, because the loan is regarded as less liquid than are good

In England

In Germany

In France

bills of exchange. The loans run from a few days up to three months. Call loans are relatively of small volume.

Loans at the general market banks

The incorporated and other commercial banks in the market also lend on reliable collateral, although real estate is quite generally tabooed. Stock-exchange securities supply the bulk of the collateral for loan purposes, although in England the discount houses borrow extensively from the joint stock banks on bills of exchange as collateral. Under the system of fortnightly or of monthly settlements which prevails on the stock exchanges the speculative loans run ordinarily until the next settlement. The call loan so familiar to American students is not a factor in stock speculation in Europe. Discount houses in England can borrow on call because if the bills which they surrender as collateral cannot be sold in the open market they can always be rediscounted at the Bank of England.

Limitation and control of credit expansion

Of deposits

Having discussed the general basis of credit expansion attention may be given in the next place to the limitation and control of such expansion. Here a distinction will be made between deposits and notes because of the special treatment accorded to notes.

Legal limitations

Speaking first of legal limitation in the sphere of deposits it may be said that practically no restriction is imposed either on the central banks or on the other banks in the general market. There is no attempt to prescribe absolute totals or reserves against deposit liabilities. Prudence and tradition alone are relied upon.

Practical limitations

The practical limitations are to be found in connection with the reserves that are actually maintained and with the rates that are charged for advances.

The reserves

Examining the reserves maintained by the central banks it is observed that in none of the three countries do the central banks make a distinction between reserve for deposits and reserve for notes. In England the rigid limitation of note issue makes the reserve apply in practice chiefly to deposits. Being the reserve-holding banks in the respective countries the three central banks maintain

relatively high reserves. Their deposit liabilities are, for the most part, the reserve deposits for other banks, and as such are the basis of further credit extension by these banks. While no definite percentage of reserves is maintained in practice, the amounts are rarely permitted to decline below 40%. The Bank of France maintains the highest reserve, the percentage varying from 55 to 75. The Great War has, of course, sadly upset these percentages. Percentage

Gold is, of course, the chief element in the reserves, but other elements are permitted. In its "banking department," namely against deposit liabilities, the Bank of England carries as reserve mostly its own notes. In normal times in recent years the "uncovered issue" of the Bank of England has constituted about one-third of the entire issue, hence, as Hartley Withers points out,[1] when the Bank of England advertises a 50% reserve the actual cash finally behind its credit may be but 33 1/3%. In Germany imperial treasury notes are also available for reserve purposes. In all three countries subsidiary silver enters as a factor in reserves, but it is only in France that silver is really significant. The Bank of France may, if it chooses, redeem its notes in silver, and this makes possible the protection of the gold holdings. In Germany the coinage of subsidiary silver is limited to 20 marks per capita, which limitation, coupled with the ordinary demands of trade, tends to prevent any large silver accumulation in the vaults of the Reichsbank. In England the silver money is only fractional currency, and it represents therefore only a minor reserve element. Composition

Bank of England

Reichsbank and Bank of France

The incorporated and general market banks keep their reserves mainly on deposit at the central banks. Only a small amount of cash is kept on hand to meet the day to day needs. In France and Germany this "cash" is made up mostly of the notes of the central banks. In England, until the recent issue of £1 and 10-shilling notes, besides Bank of England notes, it comprised also gold and sub- Reserves at the general market banks

[1] Hartley Withers, *The Meaning of Money*, p. 265.

sidiary silver. The general market banks in England have normally kept in their own vaults considerable quantities of gold. This has been due to the fact that before the Great War the Bank of England issued no notes under the denomination of £5, and possibly also to the further fact that there is not the same cordial coöperation with the central bank in the English market that is to be found in the markets of France and of Germany. In all three countries, but again more especially in England, some country bankers use the big incorporated banks rather than the central banks themselves as metropolitan correspondents, and hence as holders of ultimate reserves.

Composition

Reserves in central banks

The market banks in their statements make no distinction, however, between cash on hand and balances with their respective central banks or reserve agents. In England some of the country bankers lump cash on hand, at the Bank of England, on call and at short notice. On the continent, as long as there is a good balance at the central bank and a good stock of bills in the portfolio, the actual cash on hand is regarded as an unimportant matter. Ten per cent. seems to be regarded as about the proper reserves to be maintained, although the ultimate reserve in gold drops, of course, considerably below this level.

Percentage

Credit rates

The most effective and flexible control of credit expansion is found in connection with the rates. Here a distinction must be made between the "official" or the "bank" rate, and the ordinary market rate.

The "official" or the "bank" rates

The "official" or "bank" rates are those determined by the central banks. These rates are fixed weekly by the governing authorities, although if occasion demands they are more frequently changed. Owing to the heavy reserves maintained by the Bank of France and, perhaps, more particularly to London's position as the money market of the world, the French rate is changed less often than is the English official rate. According to figures cited in the publications of the National Monetary Com-

mission,[1] in the period from 1870 to 1907 the French rate was changed 41 times while the English rate was changed 273 times. The range of fluctuation was from 2% to 4½% in France and from 2% to 7½% in England. The Reichsbank occupies in this particular an intermediate position.

Private rates

The official "bank" rate is almost uniformly above the market rate. Hence in England in ordinary times the bank has also a "private" rate at which it will discount for its private customers. The official rate is applied only when the bank is discounting in its capacity as the leader of the market. The Bank of France and the Reichsbank have no private rate. The Reichsbank is permitted to have a private when the official rate is under 4%, but the use of a private rate has been given up. In England the private rate is not uniform at all the branches, but in France and Germany, where no distinction obtains between private and official rates, uniformity throughout the country is the rule.

Effectiveness of the official rates

The official rates are effective as checks to credit expansion only to the extent that the banking systems as a whole depend upon advances from the central banks. This dependence is more or less constant in Germany and France. In these two countries the general-market banks are not strong enough to meet unaided the demands of the market. Moreover, the widespread dependence upon notes rather than upon deposits has given the central banks with monopolistic power of note issue a position of special strength. This has been of particular significance in the collection of "out-of-town" bills. Bills payable in communities other than those in which they are held are discounted, simply for collection purposes, from five to seven days before they mature. The charge for the discount thus covers collection. In England dependence on the central bank is only intermittent. The banks in the general market have grown to be very strong, and

[1] Maurice Patron, *The Bank of France in its Relation to National and International Credit*, p. 33.

bank notes have been in England relatively unimportant. Hence the Bank of England must at times take definite steps to insure the effectiveness of the official rate when this effectiveness is considered desirable. Such steps usually involve direct borrowing of funds in the market, or the sale of securities. Every pound sterling that the bank thus obtains results in a corresponding reduction of the reserve balance of the institution from which the funds are obtained, and forces therefore a disproportionately large contraction of credit. Hartley Withers says that the English money market but dimly grasps this regulatory function of the Bank of England.[1]

Market rates

The market rate of discount is, of course, fixed by competition. It is usually below the bank rate, but that does not mean that there are not a large number of bills which have to pay a higher rate. The market rate applies only to the choicest paper, namely bills of a certain minimum, running as a rule not longer than three months and bearing a banker's acceptance or indorsement. As was seen in the chapter dealing with the protection of the reserves these market rates of discount are of importance in connection with the rates for sterling, mark, and franc exchange quoted in foreign lands.

Loan rates

The loan rate, as already indicated, is uniformly higher than the discount rate. In the field of loans the official discount rate is the standard and the loan rate varies automatically with it. The rates for speculative transactions on the stock exchanges are independently determined, tending to vary with the demands that the general speculative situation tends to make on the money market.

Expansion of note issue

England

In connection with the expansion of note issue it has already been mentioned that in all three countries the system of note issue is practically monopolistic. There are eighteen banks outside of London still enjoying the right of note issue but their issue is unimportant. The maximum was fixed by the Peel Act of 1844. At that time

[1] *Op. cit.*

it stood at £1,204,490.[1] Since then, through surrender by some of the banks of their right of issue, it has dwindled to about one-quarter of this amount. Two-thirds of the issue so surrendered was added to the Bank of England's "uncovered issue." France has an absolutely monopolistic system. In Germany there are besides the Reichsbank four other banks of issue. These German banks have no fixed maximum but their issue of notes is regulated as is that of the Reichsbank. When the Reichsbank was founded there were thirty-three other banks of issue, but all except the four already mentioned have surrendered their rights. As issue rights were surrendered by the other banks the Reichsbank was permitted to add to its own tax-free "kontingent" the full contingent that had been allotted to the banks making the surrender.

France

Germany

The control of note issue in the several countries varies. Here again this control may be discussed under the three general heads of limitation of issue, requirements as to reserves and requirements as to "cover."

Control of note expansion

There is no absolute limitation of note issue in England, but there is the rigid requirement that beyond the so-called "uncovered" issue the Bank of England must have a sovereign-for-sovereign reserve behind all notes issued. The "uncovered" issue is that based on government bonds, and amounted at the outbreak of the Great War to £18,450,000. When the Peel Act was passed the amount was £11,015,100. It grew as a result of the surrender by other banks of their issue-right. In times of great emergency, however, the government has suspended the Peel Act, and has allowed the bank to issue notes without reference to the limitations imposed by the act.[2]

Limitation of issue

In England

The charter of the Bank of France imposes an absolute limit on note issue. This limitation has not, however, been of great significance, because whenever the actual issue

In France

[1] Publications of National Monetary Commission, Vol. 1 (Interviews), p. 13.

[2] 1857, 1860, 1866, 1914.

threatened to reach the prescribed maximum the latter was quickly increased. It stood at fr. 6,800,000,000 in 1912, but as a result of the Great War this has been raised to some twenty billions.

In Germany

Germany imposes on the Reichsbank no absolute maximum, but provides a tax-free "kontingent," referred to above. This contingent before the war stood at 550,000,000 marks. The sum of the tax-free contingent and the actual cash in reserves is deducted from the total outstanding circulation, and the balance is subject to a tax of 5% per annum, payable weekly. The Reichsbank's issue has often exceeded the maximum exempt from this taxation, and yet the discount rate has remained below 5%. On these occasions it has been the theory of the management that a temporary loss to the stockholders of the bank is more than offset by the general advantage accruing to trade and industry from a uniform discount rate. The combined "kontingent" of the other banks of issue amounted at the outbreak of the Great War to only 68,771,000 marks. Their average circulation in the period 1901-1910 equaled only 10% of that of the Reichsbank.

Reserves for notes

In England

In England no reserve at all is required for the "uncovered" issue, but, as already stated, beyond the uncovered issue, notes must be backed with a 100% specie reserve. Legally, one-quarter of the specie reserve may be in silver, but practically no silver has been used as a reserve for notes since 1853. Before the expansion made necessary by the Great War the uncovered issue made up about one-third of the total.

In France

No reserve requirement of any kind has been imposed on the Bank of France. In practice, however, the bank has maintained a very high percentage. A considerable proportion of this reserve is in silver, and, as the notes are legally redeemable in both gold and silver, the bank can protect its gold through the payment of silver instead of gold when notes are presented for redemption. It must also be noted that there are in circulation in France

a large number of the silver franc pieces of the other states belonging to the Latin Monetary Union. Should the Union ever be dissolved these states must redeem in gold all their silver franc pieces held by France in excess of the French silver pieces that such states can cull from their own circulation. As the balance in such a calculation would probably weigh heavily in France's favor, it is believed that a considerable portion of her silver circulation is thus itself really equivalent to gold.

In Germany

Behind its circulating notes the Reichsbank is required to have a reserve of 33 1/3% made up of specie and government notes. There is no restriction on silver in this connection, but, as previously stated, the coinage law limits the coinage of silver to 20 marks per capita, and this tends to prevent any large accumulation of silver in the reserves. The reserve requirements of the other banks of issue are the same as those of the Reichsbank.

Other assets behind notes

As "cover" for its notes not based on specie the Bank of England is required to have government bonds. As a matter of fact the notes based solely on bonds are usually referred to as the "uncovered" issue, but in this connection it is to specie cover that reference is made. No distinction is observable between the "covered" and the "uncovered" notes in general circulation. The practical effect of the distinction in law is simply the requirement of a heavier specie reserve behind the total issue as the proportion of the "uncovered" issue in the total tends to diminish. It should also be remarked, in connection with the Bank of England notes, that the estates of all stockholders of the bank may be used as a guarantee fund behind them, since, under the Companies Act of 1874, the principle of limited liability of shareholders is not applicable to note issue. In France the cover for the notes are the statutory discounts and loans. Security investments cannot be used as a basis of note issue. In Germany the cover is commercial paper running not longer than ninety days and bearing at least two signatures.

In France

In Germany

Character of notes

In all three countries the notes are full legal tender, except in payments by the banks of issue themselves, and are consequently acceptable for reserve purposes at other banks. Bank notes are redeemable in gold in London and in Berlin, and in gold or silver in Paris.

Contraction of note issue

In England

In Germany and France

The last question to be considered in connection with note issue is that of contraction when demand falls off. In all three countries no special pressure is brought to bear on notes to force their prompt redemption. In England no pressure is necessary, because, in first instance, notes are relatively unimportant, while in the second place they are so largely simple bullion certificates. In Germany and France no special pressure is necessary just because so large a part of the operations of the central banks are carried on by means of notes rather than by deposits and checks. Bills rediscounted at the Reichsbank and at the Bank of France for collection purpose may be originally paid for by the central banks by crediting "current accounts" or deposits, but most of them will be ultimately repaid by those liable with bank notes. In Germany and France bank notes constitute so large a proportion of the available circulating medium that in all cash payments to the banks they tend naturally to predominate. The result is that, without special pressure, they flow back to the banks as demand falls off. In 1909 the variation from maximum to minimum issue in Germany exceeded 600,000,000 marks. In France, in 1910, the variation exceeded 550,000,000 francs.[1]

Rediscounting, etc.

Another topic that must be discussed in connection with elasticity of credit is that of the relations of the general market banks to the central banks that hold the reserves and that enjoy practically monopolistic privileges of note issue. It was seen that owing to the peculiar restrictions on note issue in England the banks in the general market are forced to keep considerable quantities of gold on hand

[1] Tabular Summary, Publications of National Monetary Commission.

to meet the varying demands for currency. Hence centralization of reserves is less complete in England than it is in Germany and France. In general, then, the questions to be answered are, how in the three countries considered are the surplus reserves of one community made available as a basis for credit elsewhere, and how are notes obtained when the demand shifts from deposits to notes.

In England

In England, while the central bank will rediscount for the joint stock and other banks, it virtually never does so. Moreover, the larger banks in London will not in practice rediscount in the open market bills that they have purchased. But elasticity is obtained in the English market through the reliance that is placed on call loans on bill security extended to the discount houses. When, for any purpose, a London bank considers it necessary to strengthen its reserves, the loans to the discount houses are called. To obtain funds with which to pay the called loans the discount houses take the requisite quantity of bills and offer them for discount at the Bank of England. The loans are then paid with checks drawn on the Bank of England. The result is thus the same as if the banks themselves had offered the bills for rediscount. The smaller and the provincial banks oftentimes offer bills for rediscount on the open market, or to the large metropolitan banks when the rates prevailing in the London market are favorable for such operations. Hence, as far as variations in local demand are concerned, the English system may be said to be quite elastic.

Strengthening reserves

Meeting the demand for currency

Notwithstanding the rigid restriction of note issue practically the same must be said about the normal variation in demand as between deposits and notes. An increased demand for a hand-to-hand medium is met, of course, by a withdrawal of cash from the banks. This weakens their reserves, hence they are obliged to call in their loans to the discount houses. The latter, as previously explained, go to the Bank of England and discount bills, obtaining thus the funds with which to pay the loans called. The

banks calling the loans therefore strengthen their balances at the Bank of England, which balances then take the place of the money paid out. In other words, the increased demand for a hand-to-hand medium in England is met through the payment of cash, but the effect of this is offset by the creation at the Bank of England of deposit credits which for reserve purposes are equivalent to cash.

In France and Germany

In France and Germany rediscounting for the other banks by the central banks is the common and accepted practice. This is often at a rate higher than the original discount rate, although, as previously explained, the rediscount is made only for a short period. Bills to be collected in places other than those in which they are held are pretty regularly rediscounted. Hence it is a simple matter for the individual bank at any time to strengthen its balance with the reserve-holding institution. In like manner if the individual bank feels a demand for additional currency it obtains notes from its central bank simply by drawing down its balance in that form. Practically full elasticity is thus assured.

Strengthening reserves

Obtaining notes

Clearings and transfers

Passing now to the subject of clearings and transfers consideration may be given first to local clearings. In general it may be said that local clearings are much more important in England than in France and Germany. The reason for this is to be found in the fact that, on the continent, notes are extensively employed, while at the same time these notes are issued by a single bank and are available for reserve purposes for the other banks of the system.

Local clearings

In England

The London Clearing House was established in 1777. It is a close corporation, and admits only those banks which have their head office in London. Outside banks can avail themselves of the clearing privilege only through one of the member banks. Checks on the London branches of the Scotch banks and of the colonial and foreign banks generally are collected over the counter. There are three clearings daily, the "metropolitan," the "town," and the

"country." The Bank of England is a member on one side only, presenting at the clearing house its own claims against the other banks. The checks that the other banks have against the Bank of England are simply deposited and forthwith credited. Balances are paid through a special clearing account kept at the Bank of England, so that the ultimate outcome is simply a readjustment at the central bank of the balances of the banks involved in the clearing. There are also local clearing houses in eight of the larger English towns.

In Germany

There are fourteen local clearing houses in Germany with the largest, naturally, in Berlin. They are all intimately connected with the Reichsbank, being housed in Reichsbank buildings.[1] The Berlin clearing house has nineteen members including private banking firms as well as corporate banks. The clearing is carried through at the Reichsbank, where the final differences are adjusted through the transfer of balances. There is also a supplementary clearing institution in Berlin known as the *Berliner Kassenverein*. The *Kassenverein* is really a bank owned for the most part by other banks. It is used for stock-exchange clearings and for banks not members of the regular clearing house.

In France

The comparatively small employment of the check in France is clearly indicated by the fact that there is in that country only one clearing house, namely, the *Chambre de Compensation* in Paris.[2] About thirteen banks, corporate and private, belong. There are three clearings a day, but they are of little importance. The four big credit societies occupy so large a portion of the field that a considerable proportion of the total business is through their own branches. The Bank of France is a member of the *Chambre* and the final settlement of differences resolves itself here

[1] Tabular Summary, Publications of National Monetary Commission.

[2] Since this went to press there has been a better organization of clearings in Paris.

also into a readjustment of balances at the reserve-holding institution.

Intercommunity clearings

In England

In all three countries the system of branch-banking simplifies intercommunity clearings. Ordinary checks on local banks are freely remitted in the payment of intercommunity obligations in England, while drafts on London are, of course, common. With all communities carrying, through their banks, balances in London, whether with the Bank of England itself or with other large London institutions, the clearing of claims arising between them is finally effected through a readjustment of London balances.

In France and Germany

"Country checks" are less common in France and Germany; indeed in France they are said to be negligible. Much of the checking business is in the hands of the large institutions with branches, and the clearing of claims between the branches is simply a matter of bookkeeping at the head office.

Transfers in Germany and France

The great emphasis put upon bank notes in Germany and France has led, however, to the development of a system of transfers by the central banks of those countries to obviate the wasteful shipping of currency in intercommunity payments. Both the Bank of France and the Reichsbank will make gratuitous transfers for their regular clients, while a small charge is made to outsiders. Most domestic remittances are said to be made in this form. Even more important in this connection, however, is the system of collection of the French and German central banks. Bills of exchange rather than cash payments are pretty generally employed in European business. These bills, when payable in communities other than those in which they are held, are, a few days before maturity, quite regularly offered for rediscount at the central banks. Under this system intercommunity payments are cleared directly through the reserve-holding agency.[1]

[1] In 1913 the Bank of France did a collection business of over 800 million francs. At Paris, on November 30, 1913, 456,350 bills and documents were presented for collection at 107,975 offices and domiciles.

Whether transfers are directly made through the central banks as in France and Germany, or whether other banking institutions are more largely relied upon, as in England, under the centralization of reserves that characterizes all three countries the settling of intercommunity accounts resolves itself into a process of balance shifting at the central banks.

International clearings and exchange

In the field of international clearings England is, of course, supreme. The widespread usefulness of bills on London has led to the establishment in that market of branches, or of banking connections, by the larger banking institutions all over the world. There is no mean volume of "direct business" transacted in "francs" and in "marks," but it is only a fractional part of that conducted in pounds sterling. In any case, however, the employment of bills drawn on any center in the settlement of international obligations, involves the clearing of claims and the settlement of differences through a readjustment of balances in that center.

Protection of the reserves

Intimately connected with the subject of foreign exchange operations is that of the protection of the domestic reserves. In all three countries chief emphasis is put in this connection on the control of the discount rate. This practically suffices in England and in France, which are largely creditor countries, but supplementary aids are usually needed in Germany. London has been the freest gold market in the world, and large movements in and out have been more or less the rule. Yet when it has been necessary to check an outflow of gold the Bank of England has been able to attain the desired result through the increase of its discount rate. As already indicated special steps must at times be taken to make the rate effective, but that has not blocked the fulfilment of the bank's purpose. On the other hand, there have been comparatively few large shipments of gold from Germany or from France. Gold sent to those countries usually stays there. France's international position has ordinarily been

The discount method

In England

In France

so favorable that in normal times the exchanges do not often go seriously against her. Moreover, considerably higher discount rates can prevail in other markets without seriously increasing the demand for bills on such markets. The French bankers fear unfavorable rates when they wish to bring their funds home. The situation in Germany is normally less secure. Germany has been a pretty consistent borrower in the world market and the nature of her industry is such as to subject her to relatively greater uncertainty in world commerce. Active protection of the national reserves has thus been more often necessary in Germany than in France. But the prestige of the Reichsbank, together with its final control of the discount rate, has normally sufficed for this purpose.

In Germany

Other methods

The other methods employed by the central banks of Europe to protect domestic reserves, were discussed in the chapter dealing with that special subject. The Bank of England's export corner, and the possible redemption in silver of French bank notes were noted. Mention should again be made, however, of the foreign bills held in the portfolio of the Reichsbank. The possession of these bills supplies a perfectly normal method of influencing foreign exchange rates. The central banks of England and of France have not held foreign bills, although the Great War has brought some change in this respect. The Bank of France and the Reichsbank have also frequently made, without charge, advances of credit on importations of gold. The Bank of England does not normally have to adopt such an expedient because London has for years been the great gold market, where every Monday a large supply, gathered during the previous week, has been put up at auction.

Security of credit

Lastly a word or two must be said concerning the guarantee of security of credit in the three great European countries. Much of what has already been said has a bearing on the subject, and here reference will be made simply to governmental examination and publicity.

The charters of the Bank of England and of the Reichs-

Statements and reports

Of the central banks

bank require these institutions to publish a weekly statement. The Bank of France is required to make only a monthly statement. Weekly statements are, however, the rule. But the law does not prescribe in full the details of such statements and the fullness of the information that they give thus depends primarily on the willingness of the banks to lay bare their operations. The Bank of England must also make a weekly statement to the Chancellor of the Exchequer and to the Commissioner of Stamps and Taxes, but these statements have mainly a fiscal interest. In France the finance minister may also demand information. It must be remembered, however, that in France and Germany the active management of the central banks is so broadly in the hands of government appointees that further governmental interference might be regarded as a work of supererogation.

Of the general market banks

With respect to the banks in the general market it may be said that in all three countries the only reports required are the periodical balance sheets demanded of all corporations. But in each country the larger banks make a practice of publishing more frequent reports—monthly in England and France, bi-monthly in Germany. Special preparations are made for these reports in England, where the practice is facetiously called "window dressing." Complaint of inadequate publicity is sometimes voiced in England, but Hartley Withers says that legal compulsion is abhorred by the bankers and feared by the merchants lest it involve curtailment of facilities. But what seems from the American point of view to be peculiar laxness is more than offset by high tradition. In England, for example, what we in America prescribe in legislation, the banks themselves take care of in their by-laws. This freedom from restraint has meant much for the general flexibility of European banking, and for the high tradition that has prevented the necessity for government interference European bankers generally deserve great honor.

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CHAPTER XII

BANKING IN THE UNITED STATES BEFORE THE ADOPTION OF THE FEDERAL RESERVE SYSTEM

No thorough-going national system of banking in the United States

Unlike the three great countries of Europe, banking in the United States is not under the primary supervision of the national government. It is only the banks belonging to the "national" banking system that come specifically under federal control. Thousands of so-called "state" banks, trust companies, and private bankers come under the jurisdiction of their several state governments. Hence preliminary to the consideration of the Federal Reserve System it is necessary to examine the main outlines of the banking system as it appeared in the United States at the time of the passage of the Reserve Act.

The "national banking system"

Origin

The National Banking System dates from the Civil War. Its establishment was advocated by Salmon P. Chase, the Secretary of the Treasury, who expected it to be of assistance in the marketing of government bonds, on the one hand, and in the unification of the currency on the other. While the first purpose was not achieved, the second was in time fully realized, and, despite the weaknesses that the system later exhibited, the unification of the currency stands as an accomplishment the importance of which cannot easily be overestimated. The act as originally passed in February, 1863, was of course frequently amended to meet new conditions. No useful purpose would be served by trying to review in this place the history of the act down to the present day. Historical accounts can be found in adequate variety in other treatises. Here the effort will be made to describe the system as it had developed up to 1913.

Organization of national banks

Any number of persons, not less than five in number, were permitted to form a "national banking association." They were required to file a certificate giving information concerning the individuals involved, the place of business, amount of capital, *etc.* This certificate was passed upon by an officer called the Comptroller of the Currency, who was the head of the system. The comptroller might or might not accept such organization certificate, but if he did, a proper authorization was transmitted to the persons concerned, and the new bank was ready to begin business.[1] Its charter was to run for twenty years, unless it was sooner dissolved by its own act, or as a result of violation of law. The association was authorized:

Authorized powers

"To exercise by *its board of directors or duly authorized* officers or agents, subject to law, all such incidental powers as shall be necessary to carry on the business of banking; by discounting and negotiating promissory notes, drafts, bills of exchange, and other evidences of debt; by receiving deposits; by buying and selling exchange, coin, and bullion; by loaning money on personal security; and by obtaining, issuing, and circulating notes according to the provisions of this title."

Capital requirements

The capital of national banks was fixed by the law according to the population of the several communities where the banks were to be established. It was not until the act of March 14, 1900, that a capital as small as $25,000 was permitted in the smaller towns having a population not to exceed 3,000, but after that act the gradations ran from $25,000, as indicated, to $200,000 in cities having a population of 50,000 or more. The shares were $100 each, were deemed personal property, and were made transferable on the books of the company. Fifty per centum of the capital had to be paid in before the bank was authorized to do business, while the remainder had to be paid in installments of at least 10% of the whole

[1] In the case of banks with a capital under $100,000 the certificate had also to be approved by the Secretary of the Treasury.

amount of capital each month from the time of such authorization. There were also elaborate provisions aiming to preserve the capital intact with final resort if necessary to forced liquidation by a government-appointed receiver.

Surplus and double liability of stockholders

Other general measures of safety were provided. There was, for example, the requirement that a surplus equal to 20% of the capital stock be accumulated through the apportionment to a surplus fund, before the declaration of dividends, of 10% of net profits. Moreover, the stockholders of national banks were subject to an extra liability equal to the amount of stock held.

Directors

The law provided that the banks were to be governed by a board of directors made up of citizens of the United States, resident for at least one year in the state where the bank was to be established, and continuing in such residence during their incumbency. Each director had to hold at least ten shares of the bank's stock, and had to take an oath that he would faithfully discharge the duties of his office. In the election of directors each stockholder was entitled to vote on the "one share one vote" basis.

Deposit of United States bonds

The most distinctive feature of the National Banking System was the bond-deposit requirement. Banks having a capital of $200,000 or over were required to deposit with the Treasurer of the United States not less than $50,000 in United States bonds. The requirement was not less than one-fourth of the capital where the capital was $150,000 or less. As will be seen subsequently, the bonds so deposited were made the basis of note issue. Provision was made on substantially the same terms for the entry of state banks into the system.

Limitations on business

In general the scope of the business of the national banks was as previously defined. In conformity with American procedure in these matters, granted powers were strictly interpreted. There were also positive limitations. National banks were forbidden to loan on or to purchase any of their own stock. Their debts were limited to the amount of the unimpaired capital, although notes and deposits,

drafts against money actually deposited to the credit of the bank, and liabilities to stockholders for dividends were excepted in making the calculations. There were also definite restrictions of a bank's real estate holdings, and on the amount of credit that could be extended to an individual or firm. The total liabilities of any firm, person, *etc.*, was not to exceed 10% of the bank's capital and surplus, and, however large the surplus, such liabilities were in no event to exceed 30% of the capital. In calculating these liabilities bills of exchange drawn in good faith "against actually existing values," and discounted commercial or business paper actually owned by the person negotiating the same, were not to be included. Moreover, the law forbade the overcertification of checks. It also established 7% as the legal rate of interest, except in those states which had their own interest prescriptions. In these cases the state rate was made the legal rate for the national banks.

Expansion of deposits

The expansion of credit in the form of deposits by the national banks depended upon loans and discounts. The only check on such expansion was found in the reserve prescriptions. Banks in the central reserve and in the reserve cities were required to maintain against their deposit liabilities a reserve of 25%. In all other places the requirement was only 15%. New York City, Chicago, and Saint Louis were the central reserve cities, while any city with a population in excess of 50,000 might through a petition of its national banks to the comptroller be designated a "reserve city." The significance of this differentiation lay in the fact that reserve cities might keep one-half of their required reserves on deposit in central reserve cities, while the so-called "country banks" could keep three-fifths of their reserves deposited in either reserve or central reserve cities. This redepositing of reserves grew out of the necessity of having balances in the large centers for domestic exchange operations. If a bank's reserve fell below the prescribed minimum it was pro-

Reserve requirements

Redepositing reserves

hibited from making new loans. All the different kinds of money issued by the government were "lawful money" for reserve purposes, but the currency issued by the national banks themselves was, of course, excluded from reserves.

Government deposits

The deposits of the United States government were, by the Act of May 30, 1908, omitted in calculating the total deposit liabilities against which the specified reserves had to be maintained. Before that no such special exemption was made. But to safeguard the government funds the law had always required special deposits, with the Treasury, of United States bonds "and otherwise." In Secretary Shaw's administration of the treasury department these words "and otherwise" were interpreted to mean "or otherwise," under which interpretation state, municipal, and railroad bonds of designated standards were accepted as security for government deposits. In the early years of the National Banking System the government used the banks only for depositing internal revenue collections. Subsequently customs collections were also extensively so deposited. It was not until recently, however, that payments on government account were made by checks directly drawn on depositary banks. Before that the government funds were covered into the subtreasuries on which the warrants for amounts due were drawn.

Note issue

The issue of notes by national banks was peculiarly controlled. In the first place all notes issued had to be backed up dollar for dollar by United States bonds, according to par value if that were less than the market value, or according to market value if the bonds went below par. Originally the total issue for each bank was limited to a certain rate per centum of its capital, the rate being regressive as the capital exceeded $500,000. This was subsequently changed to a uniform 90% of capital maximum, but this percentage was also increased so that the maximum was fixed finally at the full amount of capital stock.

Denominations and tender qualities

Concerning the general character of the notes it may be said that not more than one-third of the issue could be in denominations as low as five dollars, while no notes could be issued in denominations under five dollars.[1] The notes were acceptable in all payments to the government, and in payments to national banks. Bank notes were not, however, available for reserve purposes for the national banks.

Redeemability

The notes were redeemable in lawful money over the bank's counters and at the government treasury or subtreasuries. For the purpose of insuring redemption each bank was compelled to deposit in specie with the treasury 5% of the total amount of notes issued. This fund was drawn upon to redeem the notes of any bank that failed, the sale of the deposited bonds of the failed bank being relied upon if necessary to replenish the fund to the extent that the redemption of the notes exceeded the actual contribution to it of the failed bank. A bank could provide for the redemption of its notes, if it chose to reduce its outstanding circulation, by depositing lawful money or United States bonds with the Treasury, but, in order to prevent what might be considered too hasty a contraction of the currency, there was the peculiar provision that not more than $9,000,000 worth of such bonds could be deposited in one month. A tax was levied on the notes varying with the rate of interest of the bonds deposited to secure them. The rate was ½ of 1% each half year on circulation based on 3% bonds, and only one-half that on the circulation resting on the 2% bonds.

Government supervision

The general operation of the banks in the National Banking System was pretty carefully supervised by the government. The law required the banks to make at least five reports a year to the comptroller on forms supplied by him. Such reports had to be verified by oath or affirmation of the president or of the cashier, and had to be attested by the signature of at least three directors. Each of such

[1] The object of this limitation was to monopolize the field of small bills for the silver certificates and for the silver dollar.

reports had also to be published by the banks. Moreover, in addition to these reports the law provided that the comptroller, with the approval of the Secretary of the Treasury, might appoint examiners, and such examiners could be sent at any time by the comptroller to examine into the condition of any national bank.

Aldrich-Vreeland emergency currency act

The weaknesses of the American banking system as outlined by the National Monetary Commission are subsequently discussed in some detail. Here, however, it may be said that one of the most serious weaknesses was the hopeless inelasticity of the bond-secured currency. Pending the reconstruction of the whole banking system there was passed on May 30, 1908, a measure popularly known as the Aldrich-Vreeland Act, which was aimed to provide at least temporary relief should a strain on the currency be again felt. A word or two must therefore be said about this act.

It provided for the organization of "national currency associations" made up of at least ten national banks with capital unimpaired and with a surplus of 20%. The combined capital of the banks in each such association was required to be not less than $5,000,000. The individual bank could not belong to more than a single association in a city. All the banks in the association, however, were required to be in contiguous territory. When properly formed the currency associations became bodies corporate.

Issue of emergency currency

It was the business of the national currency associations to supervise the issue of emergency currency. Any bank in the association having outstanding bond-secured notes to an amount equal to 40% of its capital, and desiring more notes, was authorized to deposit with the association securities therefor, including commercial paper. Through the Comptroller of the Currency application was then made to the Secretary of the Treasury who enjoyed discretionary authority in permitting the issue of additional circulation. While notes to an amount equal to 90% of the cash value of state, city, town, county, or municipal bonds could be

issued on such securities, the maximum for other types was 75%. Moreover, no bank was permitted to issue notes based on paper in excess of 30% of its unimpaired capital and surplus. Provision was also made for the issue to a single national bank, not a member of a currency association, of emergency currency on the basis of bonds of a designated character although not on the basis of commercial paper. The total issue was limited to $500,000,000 and the total amount issued was to be apportioned over the country as a whole on the basis of capital. The 5% specie redemption fund was required for these notes as for the ordinary bank notes.

Redemption

To stimulate redemption as soon as demand fell off there was the provision that this emergency currency should be taxed during the first month of issue at the rate of 5% per annum upon the average amount in circulation, while after the first month an additional tax of 1% per annum was to be added for each month until the total tax equaled 10% per annum. Monthly returns concerning the emergency circulation had to be sent in to the government, and these returns might be verified by examinations. The notes could be retired by the deposit of lawful money or of national bank notes. They were to be issued in denominations running from $5 to $10,000, and were made redeemable in "lawful money." The act was to expire by limitation on June 30, 1914, although it was subsequently extended for another year, and really rendered most useful service during the first year of the Great War.

State Banks and Trust Companies

Character of state banks

State banks existed in this country before the adoption of the Constitution. They have continued to multiply ever since, and, at the time of the adoption of the Federal Reserve System, there were, in round numbers, eighteen thousand of them. The distinction between state banks on one side and national banks on the other is a distinction

of legal organization and control rather than of economic function. Both types conduct a general banking business, although a 10% federal tax effectively prevents note issue by the state institutions.

Trust companies

Trust companies are also organized under state laws. They exhibit a peculiar evolution in this county, but in so far as they enter the banking field they are today practically like the banks strictly so called. Indeed, Professor George E. Barnett, in his treatise on "State Banks and Trust Companies," says that a trust company today may be fairly defined as a "bank which has power to act in the capacity of trustee, administrator, and guardian."[1] Hence while there are certain differences in the regulation of trust companies as contrasted with that of the banks, these differences are not of sufficient importance for the purposes of this discussion to require separate consideration.

Incorporation

The state banking institutions are incorporated, for the most part, under general state banking laws. Incorporation generally, and more particularly of banks, was in the earlier years of the country's history a matter for special legislation. But owing to abuses of various sorts the development was from special and toward general incorporation laws.

Granting of charters

The granting of charters to individuals seeking to establish banks is left in most of the states to specially designated officers. In some cases there is an individual officer, whose entire duties comprise the supervision of the state's banking institutions. In other cases, besides the banks, such officer is required also to supervise the business of insurance within the state. In still other cases, the supervising authority is vested in a board or commission. But, in any case, to acquire a charter for a new bank under state laws requires the approval of and action by the

[1] *State Banks and Trust Companies*, Publications of National Monetary Commission, p. 18. The summary here given is based on Professor Barnett's study.

authority charged by law with the general supervision of banking.

Diversity in state regulation

As might be expected, considerable diversity is disclosed from state to state in the details of regulation. This is especially apparent in connection with capital requirements. In some cases no particular capital is specified. Where a minimum capital is specified it varies from $5,000 to $50,000, although in the majority of cases the minimum falls between $10,000 and $25,000. The capital requirements are in some cases uniform for all the banks, in other cases they are made to depend upon the population of the town where the bank is situated, or upon the amount of business done. In general, according to Professor Barnett, the minimum requirements for the smaller towns fall considerably below the levels established by the national banking law.

Capital

Paying in capital

There are marked differences also in the matter of paying in the required capital. In some cases the paying in of the capital subscribed is left to the directors to handle, in others specified sums or proportions up to the total authorized capital must be paid in before the banks can begin business. The provisions of the national banking law on this subject have been freely copied in a good many states.

Surplus

Somewhat the same thing must be said concerning the surplus. A large number of states require the definite setting aside of a part of the annual net earnings for the creation of a surplus fund. Twenty per cent. of the capital seems to be the favorite minimum requirement. Prohibitions against the impairment of capital and against the payment of dividends except out of net earnings are also common.

Objections to branch banking

There seems to be a uniform objection in all the states to anything like thoroughgoing branch-banking. Branches are expressly forbidden in some states while in the states where branches are permitted their establishment is subject to narrow restriction. In most cases the establishment of

a branch requires the consent of the banking authorities, while there is also a pretty uniform requirement that each branch have its own capital.

No note issue

While in most states the extension of credit in the form of notes would be legal for the state banking institutions, as already indicated the imposition of a 10% tax by the federal government removes note issue from the field of possibility for them. The credit of state banks is thus in practice made available only in deposit form.

Deposit expansion

In this field the restrictions on the state banks are much less drastic than are those imposed on national banks. Real estate, for example, has always been pretty generally accepted as security for advances by the state banks, although limitations of one kind or another are usually imposed. These limitations have had to do with the location of the real estate, with the character of the lien given as security for the loan, and with the proportion of the selling value that could be extended as a loan. In general the determination of what is satisfactory security for advances of credit is left to the discretion of the bankers themselves.

Reserve prescriptions

Reserve prescriptions, however, are common. Here, too, as might be expected, the prescriptions vary. Differences arise as to the amount of the reserves required, as to the form of the reserves, and also in the methods provided for enforcing reserve requirements. A distinction is commonly made between demand and time deposits, smaller reserves being required for the time deposits. The range of percentages is from 4% to 15% for time deposits and from 10% to 25% for demand deposits. In some cases reserve requirements vary with the population of the localities where the banks are established. The required reserves need in most cases to be only partly cash on hand, sums deposited with bankers up to specified proportions of the required reserves being pretty generally regarded as equivalent to cash on hand. In some cases a proportion of the reserves may be held in the form of securities. Nowhere in the states is

Amount

Composition

there any recognition of the desirability of mobilization of reserves; indeed there are numerous examples of insistence upon a contrary system of isolated and independent units.

Enforcement of requirements

In the enforcement of reserve requirements general dependence is placed on the prohibition against new loans and discounts when the reserves drop below the established level. There is also a common provision that in case of failure to restore reserves after due notice by the responsible supervising authorities, proceedings for the appointment of a receiver may be instituted. Or, in lieu of such a provision, the supervising authorities may themselves be authorized to step in and liquidate the bank's affairs.

Security rather than liquidity sought

From the viewpoint of state legislation more importance seems to have been attached to ultimate security than to the immediate liquidity of state bank assets. The restrictions based on the idea of safeguarding security are much more important and numerous than those aiming to insure liquidity. The amount loaned to any person, firm, *etc.*, is usually limited to a percentage of capital and surplus, although in this connection bills of exchange drawn against actually existing values and paper actually owned by the borrower are not included as a part of the loan. Loans on bills of lading and on warehouse receipts are also commonly excepted, while in some cases similar exception is made of loans on collateral security, or simply where the directors so vote. There are also not uncommonly provisions against excessive loans to directors or to officers.

Reports

Reports by the banks to duly constituted officers are of course generally required, and it is usually within the province of such officials to determine the form of such reports. In some cases the minimum number of the reports per year is specified. In other cases the number as well as the time for making them is left to the discretion of the supervising authorities. Publication in the local press is commonly regarded as an essential element in a system of reports.

Examinations by the state banking authorities seem also to be looked upon as a normal element in the governmental supervision of state banks. Most of the states require such examinations. The number of examinations required varies from one to four a year, although in a few cases this matter is left to the supervising authorities themselves. In a good many states special examinations of the affairs of the individual banks by the directors themselves are required. This seems anomalous, but experience has proved that oftentimes the directors have had but a hazy notion of their bank's real condition.

Examinations

Lastly, in connection with the general safeguarding of the credit extended by the state banks a word must be said about deposit guarantees. A few of the states have introduced measures involving the mutual guarantee, or what is called "insurance," of bank deposits. Such schemes involve contributions by each bank, in proportion to total deposit liabilities, to a fund administered by state authorities and used to pay depositors of failed banks where the liquidation of the assets does not permit payment in full. Deposit-guarantee schemes are not, however, sufficiently common to warrant reference to them as a characteristic feature of state banking control.

Guarantee of deposits

In addition to the seventy-five hundred national banks and eighteen thousand state banks and trust companies there are scattered over the United States a large number of private bankers. One type of private banker is found among the unassimilated alien populations of our larger cities. The foreigner unable to speak English prefers to intrust to one of his own countrymen such banking business as he needs to have transacted. This has been especially true of the Russian-Jewish and of the Italian immigrants in large cities like New York. These bankers coupled with their banking business the selling of steamship tickets, money changing, and a retail foreign exchange business. In a distressing number of cases they proved to be unvarnished villains, defrauding mercilessly their ignorant com-

Private bankers

patriots. But they have latterly been subjected to wholesome regulation in the states where they were at all numerous, and many of them, especially in New York City, have been completely driven out of business. As a class, however, they have been an insignificant factor in the whole banking situation.

Investment bankers

Much more important have been the large investment banking firms like J. P. Morgan & Co., Kuhn, Loeb & Co., Speyer & Co., and similar firms. While these firms are primarily in the investment banking field, they have been an important factor in the "money market" through the carrying of active accounts for their clients, through their operations in the security markets, through their control of some of the largest banks, and through their extensive operations in the field of international exchange. They come only to a slight extent under governmental supervision, and it must be said that strictly as bankers little criticism is ever leveled at them.

Commercial paper brokers

Lastly, a word must be said about commercial-paper brokers. Under our system of numerous independent banks many businesses outgrew the possibilities of the banking facilities of their own localities. Hence large firms had to go elsewhere. This coupled with the widespread use of single-name paper supplied the logical basis for the development of the commercial-paper brokerage business. Commercial-paper brokers handle the paper of large firms, selling it on a commission basis to banks all over the country. To a certain extent they thus assist the free flow of bank credit. They rarely indorse paper they sell, but the successful carrying on of their business requires them to examine carefully the paper of their clients, and to a certain degree to stand sponsor for it. There have been, however, a number of colossal failures, in which, through their purchase of paper from brokers, banks all over the country were involved.

It is thus apparent that up to the establishment of the Federal Reserve System there was in the United States

no banking "system" in a real sense. We had simply a congeries of scattered banking elements connected socially perhaps through membership in the American Bankers Association, but virtually isolated in a business sense except for loose voluntary arrangements within narrow limits for exchange, collection, and occasional lending purposes. The shortcomings of this system were pointedly set forth in the Report of the National Monetary Commission. This report enumerated 17 serious criticisms to which brief consideration will now be given.

No banking "system" in the United States

CRITICISMS OF AMERICAN BANKING BY THE NATIONAL MONETARY COMMISSION

Scattered reserves

(1) We have no provision for the concentration of the cash reserves of the banks and for their mobilization and use wherever needed in times of trouble. Experience has shown that the scattered cash reserves of our banks are inadequate for purposes of assistance or defense at such times.

This criticism is hardly in need of further elucidation. It calls attention to the evil that had long been recognized as one of the most serious in our banking system. Instead of permitting, through reserve centralization, the free flow of credit according to the fluctuations in demand, the old system required each bank to keep a large proportion of its reserves in its own vaults. In times of trouble, far from having a distribution of reserves that promised the maximum service for the country at large, there was a strong incentive to each bank to buttress its own position by drawing to itself the maximum supply of reserve funds. This led to needless accumulation in some quarters and dangerous weakening in others. It was often remarked in the United States that in times of trouble the banks themselves were the worst hoarders.

The depositing of a proportion of the required reserves in central reserve or in reserve cities, as permitted by the national banking law, did not necessitate any qualification of the criticism. While no mean proportion of the coun-

try's bank reserves tended to go to New York they were not in that city under a centralized control that insured maximum usefulness. Moreover, the New York banks treated bank deposits as they did the deposits of individuals, and the sending of reserves to New York tended, therefore, to result simply in further pyramiding of credit rather than in mobilization for more adequate security, or for the more uniform distribution of credit facilities among different communities. While the New York banks made advances to their correspondents such advances were on the basis of average balances maintained rather than on that of need. Finally when the outlying banks began to draw down their balances the New York banks were powerless to stop them, and were usually the first ones to be embarrassed by the reserve movement.

"Dead-line" reserve requirements

(2) Antiquated federal and state laws restrict the use of bank reserves and prohibit the lending power of banks at times when, in the presence of unusual demands, reserves should be freely used and credit liberally extended to all deserving customers.

This criticism referred to the laws which forbade the banks from extending any new loans if reserves dropped below the prescribed minima. In other words, these laws regarded reserves simply as "till-money" to be paid out over the counter rather then as a real vault reserve for the extension of additional credit facilities when occasion demanded.

No reserve strengthening facilities

(3) Our banks also lack adequate means available for use at any time to replenish their reserves or increase their loaning powers when necessary to meet normal or unusual demands.

The reference here was to the fact that practically each bank stood alone. There was no direct centralization of reserves, and there were no market practices that permitted reserve mobilization indirectly. The limited possibilities of direct lending could not eliminate anxiety when

trouble appeared even faintly on the horizon, and, as already indicated, the suggestion of trouble often resulted in panicky hoarding.

(4) Of our various forms of currency the bank note issue is the only one which we might expect to respond to the changing needs of business by automatic expansion and contraction, but this issue is deprived of all such qualities by the fact that its volume is largely dependent upon the amount and price of United States bonds. Inelastic currency

This criticism is based on the fact that the expansion of note issue for a national bank required an equivalent investment in United States bonds. Speculative changes in the price of bonds thus reacted upon the issue of notes. Moreover, with a low rate of interest on the bonds, taking into account the cost of issuing notes, it did not pay the banks to issue more notes than could be pretty definitely expected to remain in circulation. In like manner, the limitation on the redemption of notes acted against any attempt to expand note issue to meet merely temporary rather than permanent increases in demand. Furthermore, the amount of bonds available for note issue did not vary with the fluctuating currency needs of trade but with the revenue needs of the government. Hence, instead of expanding and contracting with the changing needs of industry and commerce, our national bank-note issue tended gradually to increase. Indeed, instead of being "elastic" it was *perversely* elastic, tending to expand when reserves were excessive and to contract when reserves declined.

(5) We lack means to insure such effective coöperation on the part of the banks as is necessary to protect their own and the public interests in times of stress or crisis. There is no coöperation of any kind among banks outside the clearing-house cities. While clearing-house organizations of banks have been able to render valuable services within a limited sphere for local communities, the lack of means to secure their coöperation or affiliation in broader fields makes it impossible to use these or Absence of coöperation

similar local agencies to prevent panics or avert calamitous disturbances affecting the country at large. The organizations have, in fact, never been able to prevent the suspension of cash payments by financial institutions in their own localities in cases of emergency.

Here another phase of the "scattered reserve" situation is emphasized. The public interest in times of stress and crisis requires a liberal extension of credit in order that fears may be quieted and anxieties be allayed. The necessity of self-protection when no opportunity for aid is assured tends, however, to lead the banks to restrict credit and to hoard reserves. Through the issue of clearing-house loan certificates the banks in the larger centers were able to pool reserves and to be of mutual assistance. But these loan certificates were palliatives and not preventives, and were efficacious, moreover, only in the payments between members of the same clearing house. While locally effective their sphere of usefulness was narrowly restricted.

No domestic clearing system

(6) We have no effective agency covering the entire country which affords necessary facilities for making domestic exchanges between different localities and sections, or which can prevent disastrous disruption of all such exchanges in times of serious trouble.

This emphasized the absence in the United States of an organized system of domestic clearings. Under the system of "scattered reserves" that prevailed in this country, exchange or clearing operations depended necessarily upon the voluntary interrelationships established by the banks. According to the needs of trade, exchange balances were maintained in the larger centers because drafts on these centers naturally found wide acceptability. But these exchange balances were for the most part regarded as a part of the lawful reserves, and, as a bank credited its exchange balance with items the moment that they were remitted for collection, and further, as it charged against such balance only the items that were in its hands and for which remittance had been made, there was thus always

a "float," as it was called, or mythical element in the balance. These exchange balances were regarded by the banks holding them as not essentially different from other deposits and no special reserves were maintained against them. But in times of stress the individual banks would draw down their exchange balances, and would often insist upon the remittance of currency. This would not only weaken the banks acting as the reserve or exchange agents, but resulted usually in times of panic in a complete breakdown of the system of domestic exchange.

(7) We have no instrumentality that can deal effectively with the broad questions which, from an international standpoint, affect the credit and status of the United States as one of the great financial powers of the world. In times of threatened trouble or of actual panic these questions, which involve the course of foreign exchange and the international movements of gold, are even more important to us from a national than from an international standpoint. No protection of the national gold reserves

The importance of reserve protection was discussed in an earlier chapter. The criticism here given calls attention to the fact that in this country we had no agency that was charged with the responsibility or that enjoyed the power of influencing the foreign exchanges or the exports and imports of gold. Under our system of scattered reserves relief in times of pressure could be obtained only when, at panic prices, we could persuade the foreigner to take our securities, or when, through altitudinous discount rates, we could persuade him to leave or to send funds here. We had no agency that could operate in the exchange market, now buying, now selling, with a view to influencing the rates. Similarly, having scattered reserves, we had no agency that could anticipate gold movements and effectively control the credit market at home.

(8) The lack of commercial paper of an established standard, issued for agricultural, industrial, and commercial purposes, available for investments by banks, leads to an unhealthy con- No standardized commercial paper

gestion of loanable funds in great centers and hinders the development of the productive forces of the country.

This criticism refers to the peculiar commercial paper situation that has developed in the United States. Owing to the uncertainty that arose in connection with the depreciated currency during the period just after the Civil War, the tendency in American credit was toward short terms and liberal discount for cash. This resulted in the development of a single-name-paper system under which the merchant, borrowing on his own note, paid cash for his purchases, getting the benefit of the discount. Such paper was necessarily wrapped up with the makers' purely personal credit, and bore on its face no indication of the purpose to which the proceeds resulting from the discount would be applied. Advances obtained on the basis of single-name paper might be used for forwarding *bona fide* commercial transactions, but they might also be employed for equipment, or for other fixed investment purposes. The small dealer who could not borrow on his own account would take the longer term, but would in the great majority of cases be simply carried on open account by the big manufacturer or distributor in the larger centers. This open account and single-name-paper system supplied a relatively small amount of paper for the banks to purchase. Moreover, since the distributor in the large center tended to use his accounts receivable as a basis for advances on his own note by his local bank, it meant that the bulk of such paper tended to arise in the larger cities. Through the operation of commercial paper brokers, the paper of firms of national reputation could be sold all over the country, but this was not in sufficient volume nor of such unquestionable character that the banks could avail themselves of it to any large proportion of their resources. This led the banks in the smaller communities to deposit their surplus funds with banks in the larger centers, giving, as the Monetary Commission points out, the congestion of funds that was regarded as unhealthy.

(9) The narrow character of our discount market, with its limited range of safe and profitable investments for banks, results in sending the surplus money of all sections, in excess of reserves and local demands, to New York, where it is usually loaned out on call on stock-exchange securities, tending to promote dangerous speculation and inevitably leading to injurious disturbances in reserves. This concentration of surplus money and available funds in New York imposes upon the managers of the banks of that city the vast responsibilities which are inherent in the control of a large proportion of the banking resources of the country. No open discount market

This criticism is similar to the one previously discussed, except that it calls special attention to the fact that the congestion of loanable funds was pronounced in New York. In this city the banks treated the deposits of their correspondents just as they would the deposits of any private individual, maintaining against them only the legally required reserves. Since in general the practice was to pay 2% interest on the balances of correspondent banks there was a strong incentive to the New York banks to utilize their reserves to the full. Yet the nature of these balances required that the credit based on them be embodied only in relatively liquid investments. The most valuable form of investment from this point of view was the call loan on stock-exchange collateral. Hence, as the Commission points out, a large proportion of the country's available credit was used for financing stock speculation instead of trade and industry. While the Commission refers to the responsibility that was imposed on the managers of the New York banks as the holders of so large a proportion of the country's ultimate reserves, it must be noted that that responsibility did not rest so heavily on these managers as to induce them to maintain any large surplus above the legal requirement.

(10) The absence of a broad discount market in our system, taken together with the restrictive treatment of reserves, creates at times when serious financial disturbances are anticipated a condition of dependence on the part of individual banks through- Helplessness of individual banks

out the country, and at the same time places the farmers and others engaged in productive industries at a great disadvantage in securing the credit they require for the growth, retention, and distribution of their product.

Here we have emphasis on another aspect of the weakness of our old system resulting from the absence of a broad discount market. The absence of a discount market, and the dead-line restriction that was used to bind reserves, made each bank feel that in times of stress it would have to look out for itself. There was no market in which the bank could count on disposing of some of its perfectly good assets, and there was no central agency to which it could turn with assurance that assistance would be rendered. Hence, when a feeling of apprehension developed, efforts were made to anticipate difficulties by restricting credit and trying to strengthen reserves. Through such hoarding by the banks themselves their clients were seriously inconvenienced.

Disparity in discount rates

(11) There is a marked lack of equality in credit facilities between different sections of the country, reflected in less favored communities, in retarded development, and great disparity in rates of discount.

The high capital requirement under the National Bank Law and the general opposition to branch-banking in most of the states discouraged the organization of independent banks except in the relatively larger communities where business moved in sufficient volume to justify large investments of capital. The result was that many small communities enjoyed no banking facilities whatever, and this naturally meant that the economic aid rendered by banks could not be extended to the inhabitants of such community.

No control of discount rates

(12) Our system lacks an agency whose influence can be made effective in securing greater uniformity, steadiness, and reasonableness of rates of discount in all parts of the country.

The scattered reserves and the consequent immobility of credit based upon them, taking into account also the

absence of an open discount market, naturally led to great disparity in discount and loan rates over the country as a whole. Moreover, the lack of mobility resulted in relatively great fluctuation in each community, because with mobility a comparatively slight rise in rates in any community tends to attract funds from other communities.

(13) We have no effective agency that can surely provide adequate banking facilities for different regions promptly and on reasonable terms to meet the ordinary or unusual demands for credit or currency necessary for moving crops or for other legitimate purposes.

No facilities to meet emergencies

This criticism refers particularly to the absence of proper facilities in agricultural districts at the season when the demand for credit is especially heavy in such districts. Our reserves were scattered, our banks were largely disconnected units, and our bank-note issue was utterly inelastic. Hence the farmer who needs credit seriously in the crop-moving season, and who needs it more particularly in the form of notes, seemed to be under special difficulties.

(14) We have no power to enforce the adoption of uniform standards with regard to capital, reserves, examinations, and the character and publicity of reports of all banks in the different sections of the country.

No uniform standards for banks

This is a political rather than a purely economic criticism. It grows out of the separation of state and federal regulation of our economic life. Banks have not been regarded simply as instruments of interstate commerce and hence as coming under the exclusive jurisdiction of the federal government. As already seen, the majority of the banks in the United States are organized under state laws. There arises, therefore, the great diversity in the control of the banks here referred to.

(15) We have no American banking institutions in foreign countries. The organization of such banks is necessary for the development of our foreign trade.

No foreign agencies

The experience of England and of Germany has shown the great advantage, not to say the necessity, of having in foreign countries, especially the great neutral markets like South America and the Orient, agencies of home banks, or independent institutions established by home interests for the purpose of financing foreign trade. Moreover, the operation of such over-seas banks is of great advantage in protecting the home credit situation in that bills drawn on and made payable in the different markets may be bought or sold, as the foreign exchange situation in the home market may require. We have never had banks in foreign countries to handle such business for us. We have depended for our foreign operations on alien bankers. This has involved heavy tribute to such bankers, and, since they have naturally favored the trade of their own country wherever they could, it has hindered the development of American foreign trade.

Narrow restriction of real estate loans

(16) The provision that national banks shall not make loans upon real estate restricts their power to serve farmers and other borrowers in rural communities.

This criticism is hardly in need of any further elucidation. It refers to the fact that in the agricultural districts prospective borrowers have little beside land to offer as security to the banks. Hence extreme limitations upon the acceptability of real estate as a basis of loans is a hardship on the farmers.

Independent treasury

(17) The provision of law under which the government acts as custodian of its own funds results in irregular withdrawals of money from circulation and bank reserves in periods of excessive government revenues, and in the return of these funds into circulation only in periods of deficient revenues. Recent efforts to modify the Independent Treasury System by a partial distribution of the public moneys among national banks have resulted, it is charged, in discrimination and favoritism in the treatment of different banks.

This criticism refers to the Independent Treasury System which has been in vogue in the United States since

1844. The United States government, after the closing of the second United States Bank in 1836, was seriously pressed at times because of the failure or suspension of some of the state banks that had acted as depositories for the federal government. In self-defense the Independent Treasury System was organized, but, as the finances of the federal government developed and involved heavier and heavier sums, the collection of the revenue and the disbursement of the public funds resulted in arbitrary interference with the money market. Moreover, the maintenance in the treasury of a large average balance meant an economic loss. In the later years, as the criticism itself indicates, the Independent Treasury System was modified, but much was left to the discretion of the Secretary of the Treasury, and in the exercise of that discretion the secretary was occasionally accused of discrimination and favoritism.

As a result of these criticisms the National Monetary Commission formulated recommendations for the reorganization of the country's banking system. A complete scheme of bank reform, known as the Aldrich scheme, was presented to Congress and to the country at large. The Aldrich scheme was pushed by bankers and business men, but there was considerable opposition to it owing to the fact that popular control of the banking system was not sufficiently safeguarded, and owing to the further fact that the reserve institutions, for which it provided, were in the main to function primarily as emergency institutions. There were also some criticisms of detail, but of these it is not necessary to speak in this place. Suffice it to say that the Aldrich scheme was not adopted. With the election of a democratic president in 1912, the democratic majority in Congress turned its attention to a new scheme of banking reform. After various hearings and joint discussions the Federal Reserve Act was presented to Congress, and, after debate and amendment of the act in both

houses of Congress, the proposed law was referred to a conference committee, whose report, as usual, was adopted. This gave us the Federal Reserve System which, with some amendments, is the system that we have today.

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CHAPTER XIII

THE PRINCIPLES OF THE FEDERAL RESERVE SYSTEM

I. Centralization of Reserves

The factor most largely responsible for the peculiar organization of the Federal Reserve System was need of centralization of reserves. Yet "centralization" had always had such an ominous ring in American ears that it was assumed to be necessary to avoid the semblance of complete centralization even though the benefits accruing from it were, if possible, to be assured. **Absolute centralization feared**

The act provides for the establishment of new banks, to be known as Federal Reserve Banks, into which the reserves of the country are, so far as possible, to be gathered. The country is to be divided into from eight to twelve "federal reserve districts" in each of which is to be designated a "federal reserve city" in which in turn the new banks are to be established. The first districting of the country is to be by an "organization committee" made up of the Secretary of the Treasury and the Secretary of Agriculture and the Comptroller of the Currency. After the organization of the system a board known as the "Federal Reserve Board" is to have control of this matter. **Federal reserve banks** **Reserve districts**

A minimum capital of $4,000,000 is prescribed for each federal reserve bank. The capital is to be subscribed by "member banks" of the district, each bank entering the system subscribing an amount equal to 6% of its own capital and surplus. One-sixth of the amount subscribed is payable on call, one-sixth three months after the organ- **Capital of reserve banks**

ization of the banks, one-sixth in six months, while the balance is to remain on call. If the bank subscriptions prove inadequate to supply the minimum capital, provision is made for popular subscriptions, although subscriptions by single individuals and corporations are limited to $25,000. So determined was Congress that the Federal Reserve System should get started that subscriptions by the United States government are pledged in every case where bank and popular subscription together do not suffice to supply the minimum capital. Above the minimum, the capital of the reserve banks may fluctuate as banks join or withdraw from the system. The shares are to be $100 each, payable in gold or in gold certificates. Those owned by banks are not to be transferred or hypothecated.

Membership

Ostensibly, membership in the Federal Reserve System was to be voluntary, and provision is made for the entrance into membership of state institutions as well as of national banks. By amendment adopted June 22, 1917, provision is also made for membership of banks organized under local laws in the territorial possessions. As a matter of fact, pressure was brought to bear on national banks to force them into the system, although at the same time inducements were extended to them as well.

Pressure on national banks

National banks are required to signify within sixty days after the passage of the act as to their intention of joining the system. If they fail so to signify, they may on thirty days' notice from the Organization Committee be forbidden to act as reserve agents. Moreover, it is provided that government funds shall not be deposited with nonmembers of the system, and that a bank's charter shall be declared forfeited if it fail to enter the system within one year.

Inducement to national banks

As an inducement to national banks to come into the system it is provided that, on application to and approval by the Federal Reserve Board, and if not in contravention of state law, national banks may be permitted to do a

trust business. It is also provided that member banks not in central reserve cities may make restricted loans on improved, unencumbered farm lands, but in this connection power is given to the Federal Reserve Board to add cities to the list of those not permitted to make such loans. An inducement to the large city banks interested in the possibilities of foreign trade is found in the provision that national banks with a capital and surplus greater than $1,000,000, may with the authorization of the Reserve Board, establish foreign branches. But perhaps even more significant in this connection are the provisions enabling member banks to engage in the business of accepting on commission.

Amendments adopted in June, 1917, offer special inducements to the state banks to come into the system. While state banks must comply with the reserve and capital requirements of the act and with the provisions of law prohibiting the purchasing of or the lending on their own stock they are permitted to retain their state charter privileges. They are also exempted from the restriction in Revised Statutes 5200 relating to loans to individuals, although the restriction is practically made to apply in rediscounting operations by the bank itself at the federal reserve bank. Finally, provision is made for the withdrawal, on six months' notice, of a state member bank, although the law does not permit a reserve bank to cancel more than 25% of its capital in any one year for this purpose unless special authorization is obtained from the Federal Reserve Board.

Although branch-banking has not, on the whole, been favorably regarded in the United States, it was recognized that the peculiar function of the reserve banks would in time require the establishment of branches. It is therefore provided that the reserve banks may be permitted or required by the Reserve Board to establish branches in their several districts, and also in the other districts where the reserve banks of such districts have for any reason sus- Branches

pended operation. Provision is made for the operation of the branches by boards of directors of not more than seven members or less than three, under rules and regulations approved by the Reserve Board. The members of these boards are to have the same qualifications as directors of the reserve banks themselves. A majority of one of the branch directors is to be appointed by the reserve bank concerned, but the remainder are to be designated by the Federal Reserve Board. The bank is to select the branch manager.

Management of the reserve banks

The act vests the government of the reserve banks in a board of nine directors. These are divided into three classes, A, B, and C, each containing three members.

Directors

Class A directors are to represent and are to be elected by the member banks. Class B men also are to be elected by the member banks, but are to represent the broader business and commercial interests of the district. Class C directors are to represent the general public interest and are to be designated by the Reserve Board. One of the Class C directors is to be designated as chairman by the Reserve Board, and by virtue of such designation he becomes also the "Federal Reserve Agent." Another Class C director is to become in like manner vice-chairman. It was originally provided that the vice-chairman should also be deputy federal reserve agent, but by amendment adopted in June, 1917, the office of deputy agent was abolished, and authority was given to the federal reserve agent to appoint one or more assistants who have power to act in his name or stead during his absence. The law provides that the reserve agent is to be a person of tested banking experience.

Federal Reserve Agent

Election of directors

The method of electing the directors is carefully prescribed, and at the same time the essential qualifications of the directors are specified. It is hardly necessary to go into these matters in detail, although it may be said that the aim is to give the small banks equal voice with the large. The law provides also that no senator or representative in

Congress shall be a director or officer of a reserve bank, and that no director in Class B shall be an officer, director, or employee of any bank, while directors in Class C shall not even be stockholders of banks. The term of office for the directors is fixed at three years.

Dividends

As the federal reserve banks are to be public rather than profit-making agencies, their dividends are limited to 6% per annum. The dividends are, however, cumulative. It is provided that one-half of the net earnings after the dividends have been declared shall go into a surplus fund, until a surplus of 40% of the capital is accumulated. The remaining net earnings are to go to the United States government. It is interesting in this connection to notice that the amounts paid to the government are to be used, at the discretion of the Secretary of the Treasury, to supplement the gold reserve against United States notes or to reduce the government's bonded indebtedness. The surplus is of only secondary interest to the stockholders, however, because it is provided that, should a reserve bank go into liquidation, anything remaining in the surplus after proper deductions for debts, for dividends, and for the par value of the stock, shall accrue to the United States.

Surplus

Excess earnings to U. S.

Taxes

The federal reserve banks are, by the law, made exempt from all taxes except those on real estate. In view of the limitation of dividends this would appear to be the only consistent course to pursue. Special taxes are provided in connection with the control of credit expansion as subsequently set forth, but these special taxes, contingent upon certain eventualities, are not for revenue purposes. The expenses of the Federal Reserve Board, of note issue, of the preparation of printing plates, *etc.*, are to be assessed on the federal reserve banks by the Reserve Board.

Franchise

The franchise of the reserve banks runs twenty years unless sooner dissolved by Congress, or unless forfeited by particular banks through violation of law, *etc.*

To coördinate and to control the whole system, provision

The Federal Reserve Board

is made for the creation of an agency called the Federal Reserve Board.

Membership

This Board is to be made up of seven members. Two of the seven, namely, the Secretary of the Treasury and the Comptroller of the Currency, are made members *ex officio*. The remaining five are to be appointed by the President with the advice and consent of the Senate. Vacancies are to be filled in the manner provided for original appointments, except that when vacancies occur during the Senate recess, the law provides that the President shall grant a commission expiring thirty days after the date of the opening of the next session. The term of office of the appointed members is fixed at ten years, except in the case of the first incumbents, who are to serve two, four, six, eight, and ten years respectively. Provision is made for removal for cause by the President.

Qualifications

In defining the qualifications of members of the Reserve Board the law provides that not more than one member can come from a single reserve district. While two of the five appointed members must have had banking or financial experience, no member of the Board is permitted to be an officer, director, or stockholder of a bank. Then, too, senators and representatives are made ineligible.

Organization

The law makes the Secretary of the Treasury the *ex-officio* chairman of the Board, but it provides that the Board itself shall choose from the five appointed members one to act as governor and another as vice-governor. Provision is made for the appointment by the Board of a secretary, of counsel, and of other necessary aids.

Powers

The Federal Reserve Board is one of the most powerful administrative boards in the world. Its powers in detail can be more intelligently set forth in connection with the related subjects, but here it may be said that the Board exercises general supervision over the whole system. A few of the general powers may be enumerated as follows:

It may suspend or remove any officer or director of a federal reserve bank.

It may add to, or reclassify, central reserve and reserve cities.

It may require reserve banks to write off doubtful debts.

It may suspend a reserve bank, take it over, or liquidate it.

The law provides for a Federal Advisory Council, made up of one member from each reserve district. The members are chosen by the boards of directors of the reserve banks. The Council is to meet quarterly at Washington, and oftener, if called by the Federal Reserve Board. Provision is also made for special meetings at Washington or elsewhere. Federal Advisory Council

As is hinted in the name, the powers of the Federal Advisory Council are advisory only. The Council is authorized to confer directly with the Reserve Board on general business conditions; to make oral or written representations concerning matters within the jurisdiction of the Board; to call for information and to make recommendations in regard to discount rates, rediscount business, note issue, reserve conditions in the various districts, the purchase and sale of gold or securities by the reserve banks, open market operations by the reserve banks, and the general affairs of the reserve banking system. Powers

Omitting from consideration here the capital stock, the sources of the funds to be mobilized in the federal reserve banks were originally two: deposits of member banks and deposits of the United States government. Since June, 1917, deposits of non-member banks for exchange purposes have been permitted. In this connection mention should also be made of accounts carried for foreign correspondents. Provision is made for deposits by one federal reserve bank in another, but these, also, are solely for exchange purposes, and represent no net addition to the reserve system as a whole. Reserve mobilization Sources

The depositing of government funds in the reserve banks is not mandatory. The law provides that the Secretary of the Treasury "may" direct that treasury money in the Government deposits

general fund, except the 5% redemption fund behind the national bank notes and the redemption fund held against federal reserve notes, be deposited in federal reserve banks. The reserve banks are to act as the fiscal agents of the government when required. Revenue as it is collected may be deposited in the reserve banks and disbursements may be made by drawing checks against the government's account.

Bank deposits

The law originally provided that member banks were to keep in their several reserve banks a prescribed proportion of their legally required reserves. The reserves prescribed for central reserve city, for reserve city, and for country banks were respectively 18%, 15%, and 12%. In each case the law required the depositing in the reserve banks of a little more than one-third of these reserves, namely, 7/18, 6/15, and 5/12 respectively. Furthermore, while making special provision for a transition period of three years, the law provided that at the end of three years, 5/18, 4/15, and 3/12 respectively of the prescribed reserves of central reserve city, reserve city and country banks were to be in the member bank's own vaults or on deposit with its reserve bank. The remaining one-third of the required reserves was to be in cash in the member bank's own vaults. In order further to stimulate reserve centralization these provisions were amended in August, 1916, so that by a vote of at least five members and covering all the districts, the Reserve Board might by general ruling permit member banks to deposit in the reserve banks any portion of their reserves previously required to be carried in their own vaults. But owing to the desire further to strengthen the reserve system in the face of the Great War the whole reserve requirement was changed in June, 1917. There is now no legal provision for vault reserves, but all member banks must keep prescribed balances with their reserve banks. These balances are 3% of time deposits in all cases, and 13%, 10%, and 7% of demand deposits for banks respectively in central reserve cities, in

reserve cities, and in other places. In other words, all required reserves of member banks must now be deposited in the reserve banks. Member banks are also forbidden to deposit with non-member state banks or trust companies in excess of 10% of their own capital and surplus.

II. Elasticity of Deposits

The deposits in member banks are classified in the law under "demand deposits" and "time deposits." All deposits payable within thirty days are demand deposits. Postal savings deposits and those requiring at least thirty days' notice, or running longer than thirty days, are considered time deposits. Expansion of deposit liabilities by the member banks is specifically limited by the law itself only in connection with the reserve prescriptions. The law provides that no bank falling below the prescribed reserves is at any time to make new loans or to pay dividends until the reserve required by law is restored.

Member banks

Expansion

As is the case with the member banks, the specific limitation of deposit expansion by the reserve banks is found in reserve prescriptions. Owing to their peculiar responsibility as well as to the nature of their deposit liabilities, reserve banks are required to keep a relatively high cash reserve, namely 35%. This reserve may be in gold or lawful money.

Reserve banks

Expansion

In order, however, to prevent the reserve prescriptions from acting as a mere "dead line" in deposit expansion the law contains a remarkable provision, authorizing the Federal Reserve Board "To suspend for a period of thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days, any reserve requirement specified in this Act."

Reserve suspension

But to safeguard the broad authority given in this clause from being used by a complaisant board as a mere inflationist measure, the law adds an important proviso, namely, that the Reserve Board "shall establish a graduated tax

upon the amounts by which the reserve requirements of this act may be permitted to fall below" the level specified.

Control of deposit expansion

In the earlier chapters of this treatise, it was pointed out that the possibility of controlling credit expansion was in the main a matter of controlling the discount rate. On the other hand, in the field of deposits, owing to the nature of the check, automatic redemption of credit can be expected as a matter of course. Hence in the Federal Reserve Act provision is made only for the orderly control of expansion. The law says that the federal reserve banks may, subject to review and determination of the Federal Reserve Board, establish rates of discount for different classes of commercial paper. Of course, it needs hardly to be repeated that the success of such control depends upon the degree to which the official rates may be made effective.

III. Elasticity of Notes

Expansion

The expansion of note issue is more carefully controlled. Two kinds of notes are provided. The first kind grows out of the necessity of taking care of the bond-secured national bank notes. It was considered unfair suddenly to withdraw the circulation privilege from bonds that had gone to a premium because of that privilege, and, at the same time, it was believed to be essential to guard against the possibility of a sudden contraction of the currency. Hence, a special type of bond-secured "Federal Reserve Bank Note" was devised to supplement and finally to supplant the national bank notes. The second form of note provided for, namely, the "Federal Reserve Note," is intended to be the permanent and elastic type. These can be considered in turn.

Federal reserve bank notes

The law provides that for a period of twenty years (beginning two years after the law's enactment) a member bank wishing to reduce, or to retire, circulation may apply to the Treasurer of the United States to sell for its account

the necessary amount of its bonds deposited with the government. These applications are to be turned over to the Federal Reserve Board at the end of each quarter. The Board may then require the federal reserve banks to purchase such bonds up to $25,000,000 per year, allotting the purchases to the several banks on the basis of proportionate capital and surplus. The reserve banks may then deposit such bonds with the government, and may take out notes which are their own obligations, and which are of the "same tenor and effect" as national bank notes. These are the "Federal Reserve Bank Notes," and are issued and redeemed under the same terms as national bank notes except that the total amount issued by a reserve bank is not limited to the capital stock of such bank.

Exchange of bonds with circulation privilege

Should the federal reserve bank prefer, however, not to issue notes under this provision, it may, with the permission of the Federal Reserve Board, turn over to the Secretary of the Treasury the 2% bonds bearing the circulation privilege, but against which no circulation is outstanding, and get in exchange one-half of the amount in one-year 3% United States gold notes, and one-half in 3% gold bonds. But, at the time of making the exchange, the federal reserve bank must bind itself to purchase, at the maturity of the notes, an equal amount for gold, if so requested by the Secretary of the Treasury, and to renew the obligation annually for a period of thirty years. The significance of this strange provision lies, of course, in the availability of the one-year notes as quick assets. At a given moment they could be quickly sold by a bank, even though, some months later, the bank had to purchase with gold a new lot. Should it so desire, the federal reserve bank may, with the approval of the Reserve Board, exchange the notes for more 3% bonds. These bonds have not, of course, the circulation privilege.

Federal reserve notes

The elastic notes in the new system are known as "federal reserve notes." These are the obligations of the United States government itself. They are issued at the

discretion of the Federal Reserve Board, to the federal reserve banks, and through the federal reserve agents.

How issued

The notes are to be held in readiness at the Treasury, at sub-treasuries, or at the mints nearest to the federal reserve banks for which they are prepared. They are issued in denominations of $5, $10, $20, $50, and $100, and they have on their faces the numbers of the banks through which they are issued, each federal reserve bank having for this purpose a distinctive letter, serial number, *etc.*

Denominations

Tender and redemption

Federal reserve notes are receivable by the federal reserve and by member banks, and by the government for all public dues. They are not legal tender in payments to individuals; but this will not seriously influence their acceptability. They are redeemable in gold on demand at the treasury in Washington, and in gold or lawful money at any federal reserve bank. Furthermore, they constitute a first lien against the assets of the reserve bank through which they are issued.

Cover

When it wishes to issue notes, a federal reserve bank makes application through its federal reserve agent. As special guaranty for the notes, it must supply an equal amount of collateral made up of notes, drafts, bills of exchange or acceptances which it has rediscounted, or bills of exchange indorsed by a member bank and bankers' acceptances purchased in the open market. The Reserve Board may call for more collateral should that be deemed necessary, but the point is that the major portion of the reserve banks' normal investments become thoroughly acceptable cover for note issue. The transformation of credit from deposit form into note form ought not, therefore, to be a matter of difficulty. By amendment, in June, 1917, gold and gold certificates were also made legal cover for reserve notes.

Control of note expansion

A limitation of note expansion is implied in the reserve prescriptions. The reserve banks are required to hold a reserve in gold (not simply gold or lawful money as with

deposits) of 40% against federal reserve notes in actual circulation, and not offset by gold or lawful money deposited with the federal reserve agent for the purpose of retiring notes. Since June, 1917, gold and gold certificates deposited as collateral may be counted as a part of the required reserve against notes. The effect of this appears to be the changing of the legal basis of note issue from a minimum of 100% paper and 40% gold to 60% paper and 40% gold.[1] A part of the gold reserve must be deposited with the United States treasurer. How large this part should be is left to the discretion of the Secretary of the Treasury, but it must in any case be not less than 5%. But here, too, a more adjustable check is provided in the authority vested in the Reserve Board to grant in whole or in part, or to reject altogether, the application of a federal reserve bank for notes, and to fix a rate of interest on notes, the collateral for which is something other than gold or gold certificates. In an article in the *North American Review*, for October, 1913, Mr. Paul M. Warburg criticises the arbitrary power granted to the Federal Reserve Board over note issues. The probability is, however, that the provision for a possible interest charge on note issues was regarded as an emergency expedient to prevent inflation.

Prescribed reserves no "dead line"

As in the case of deposits, so in the case of notes, in order to prevent the reserve requirements from acting under all circumstances as a "dead line" authority is granted to the Reserve Board to suspend the reserve requirements for thirty days, and to renew the suspension for periods of fifteen days. But in order that needed expansion may not degenerate into out-and-out inflation, the Reserve Board is required to establish a graduated tax of not more than 1% per annum on the deficiency in the reserve below 40%, and above 32½%, and of not less than 1½% per annum on each 2½% that the reserves diminish

[1] This is, however, not a weakening of the notes. In any case a bank has assets equal to liabilities and reserve notes enjoy a prior lien against all assets.

below 32½%. Furthermore, to insure that this tax also will have the proper discouraging effect on the ultimate borrower, it is required that while in first instance the tax is paid by the federal reserve bank concerned, the bank itself must add an amount equal to the tax to the rates of interest fixed by the Federal Reserve Board. Thus while expansion of note issue to meet real demand is provided for, the necessity of guarding against over-expansion has not been neglected.

Contraction The law contains a series of provisions designed to insure contraction of notes when demand falls off. The notes may not be counted as lawful money for reserve purposes, either by member banks or by reserve banks. It is therefore to the interest of a member bank to deposit in its reserve bank as speedily as possible all federal reserve notes that it receives as deposits, excepting in so far as it may need a portion of them for till-money purposes. There is a certain inconsistency here, since deposits in the reserve banks are regarded as reserves by member banks. This inconsistency, however, as in the case of the provision for a possible interest charge on note advances, finds its explanation in the desire to exert upon the notes such pressure as may be necessary to enforce their redemption. Nevertheless, the Reserve Board is on record in favor of making federal reserve notes lawful money for reserve purposes for member banks.

Another provision, the purpose of which is to stimulate redemption, is that which not only specifically requires reserve banks to return each other's notes, either to the original bank of issue or to the treasury for retirement, but which also imposes a penalty of 10% of the amount involved for the paying out by one reserve bank of the notes of another. The reserve banks must also reimburse the treasury for notes redeemed there; and if in redeeming such notes, the treasury paid out gold or gold certificates, the Secretary of the Treasury may demand reimbursement in like funds. The notes received by the treasury otherwise

than for redemption may be exchanged for gold out of the redemption fund or may be simply returned to the issuing bank for the credit of the United States. The results of these alternatives may or may not be the same. Redemption in gold, on the basis of 40¢ reserves, means a contraction of $250 in credit for each $100 worth of notes redeemed. Returning the notes for government credit means simply a transformation of credit from note form into deposit form. As the reserve required against deposits is smaller than that required against notes, the net result of this alternative may be further expansion rather than contraction. Still the result is the same if the gold taken from the redemption fund is immediately put back into the banks. In both cases, however, there is the initial redemption which is the important consideration. In the case of redemption in gold, the redemption can be made more than doubly trenchant simply by holding the gold in the treasury. Should reserve banks desire of their own accord to reduce their note liabilities, they may do so by depositing with their several reserve agents, notes, gold, gold certificates, or lawful money. As amended in June, 1917, the law permits gold turned over to the treasury for redemption purposes, and taken from the fund held by the federal reserve agent as collateral security, to be still regarded as collateral security just as if it were deposited with the reserve agent.

Contraction of notes in response to falling demand would seem therefore to be reasonably assured under the new system.

IV. Strengthening Reserves and Rediscounting

Deposits in reserve banks lawful reserves for member banks

A system of centralized reserves and of monopolistic note issue must make both reserves and bank notes available to its constituent local banks. In this connection it may be noted that in the Federal Reserve System the deposit balances of the member banks in the federal reserve banks

may, as already indicated, be counted as reserves by the member banks. This is, of course, a necessary corollary of centralized reserves. These deposits may be checked against by the member banks or be simply drawn down in reserve notes or in lawful money. The important consideration for the member banks is, therefore, the maintenance of adequate balances with their several federal reserve banks.

Rediscounting

Paper eligible

This is made possible by the provisions for rediscounting. With the indorsement of a member bank, the federal reserve banks may discount for such member bank, notes, drafts, and bills of exchange arising out of actual commercial transactions. The law imposes on the Reserve Board the responsibility of determining the character of such paper, but it specifically declares ineligible notes and bills covered by, or put out for carrying, stocks and investment securities, except notes and bonds of the United States government. On the other hand, it provides that paper secured by agricultural products or other goods and merchandise shall not be declared ineligible. The obvious purpose of the discrimination against investment and similar paper is to discourage security speculation. Bills acceptable for rediscount may not run longer than ninety days, exclusive of days of grace. Here too an exception is made in favor of the rural borrower, in that bills issued for agricultural purposes and those based on live-stock may have a six months' maturity. The amount of these long-time bills, however, must be limited to such a percentage of the assets of the reserve bank acquiring them as may be determined by the Federal Reserve Board. In order to control the utilization of the advantages of the Federal Reserve System by banks which are unwilling to assume corresponding obligations, it is provided that, in applying for or receiving discounts, a member bank can act for a non-member only with the express permission of the Federal Reserve Board. Lastly, it may be mentioned that, according to an amendment adopted in August, 1916, a

reserve bank may make advances to member banks on their promissory notes, for periods not exceeding fifteen days at rates established by the reserve banks but approved by the Reserve Board, provided that these notes are secured by "such notes, drafts, bills of exchange, or bankers' acceptances" as are eligible for rediscount or for purchase by the reserve banks, or provided that they are secured by the deposit of bonds or notes of the United States. In other words, if a member bank has on hand eligible paper that it prefers to keep rather than to rediscount, or if it holds or can obtain government bonds or notes, it can offer either or both as collateral for a direct loan.

On the whole, therefore, it may be concluded that the question of obtaining till-money or that of strengthening reserves is simply one of having on hand an adequate supply of bills acceptable for rediscounting, or of bonds or paper that can be used as collateral for a direct loan.

Inter-district flow of funds

In connection with rediscounting, however, one important question remains. This relates to the provision made for one reserve district to get the advantage of possibly redundant reserves in other districts. Nothing is as effective in bringing about a free flow of funds as an open discount market. With such a market each bank buys or sells according to its own needs. If the paper available be of the proper character, and if the interbanking relations be such as to inspire the necessary confidence, this free flow of funds may not only characterize the nation as a whole, but may also enter as an important possibility in international operations.

Basis of an open discount market

Understanding the advantage of an open discount market, the framers of the law endeavored to provide at least some of the facilities necessary to its creation. Provision was made for the creation of bankers' acceptances. As the law now stands, member banks may accept drafts and bills of exchange growing out of exports and imports up to one-half of their paid-up and unimpaired capital, or with the permission of the Federal Reserve Board, up

to the full amount of such capital. Moreover, they can accept bills growing out of domestic transactions but not in excess of one-half of their paid-up capital and surplus, provided that shipping documents conveying or securing title are attached to the bills at the time of acceptance, or provided that the bills are secured by warehouse receipts, *etc.*, conveying or securing such title. The transaction covered must involve readily marketable staples. The amount of acceptances for one individual firm, *etc.*, is limited to 10% of the bank's paid-up and unimpaired capital and surplus unless the bank is secured either by attached documents or by some other actual security growing out of the same transaction as the acceptance. For bills with strong banks as acceptors there ought to be a wide demand. Such bills ought to flow wherever the rate of discount is lowest. To facilitate this dispersion, the law permits the federal reserve banks to discount these acceptances when they have the indorsement of at least one member bank. Moreover, as a further important factor in helping the free flow of funds, the law permits the reserve banks to buy and sell in the open market acceptances and bills of exchange eligible for rediscounting, and the open market purchases need not have the indorsement of a member bank. Finally, should it be impossible to build up an open market, or should the possibilities of such a market prove at any time inadequate, there is the provision that the Federal Reserve Board may permit, and, on vote of five members may compel, the reserve banks to rediscount for each other at rates fixed by the Board itself.

V. Domestic Clearings

In the chapter dealing with this subject, it was shown that a well-organized banking system based upon centralized reserves implies a thorough-going system of domestic clearings or transfers. The importance of this was recognized in the original Reserve Act and was further emphasized in subsequent important amendments.

Reserve banks may be clearing houses for members

As clearing involves the balancing of credits against debits, in the absence of direct relations between debtors and creditors the process can be executed only through the intermediation of an agency standing between them and acting for both. Hence the Federal Reserve Law permits the Federal Reserve Board to require each reserve bank to act as a clearing house for its member banks, and it may also permit the reserve banks, for exchange purposes, to carry accounts with each other. The amendment of June 22, 1917, permits reserve banks to accept deposits for exchange purposes from non-member banks, which must, however, maintain balances sufficient to offset all items in transit held for their accounts by the reserve banks concerned.

The reserve banks must receive at par all remittances drawn on their own depositors that may be sent in for collection by member banks and by other reserve banks. Beyond this they may receive for collection maturing bills payable on presentation. This applies to bills payable anywhere when deposited by member banks, and to bills sent in by other reserve banks when such bills are payable somewhere within the district of the receiving bank. Furthermore, there is the interesting provision that one reserve bank may send as a credit to a second reserve bank items drawn against a third reserve bank or its member bank. The object of this provision is to permit three-cornered exchange whereby a given bank liquidates its indebtedness to a second bank by sending a credit payable at a third. The whole system of charges for such clearings is in general under the control of the Federal Reserve Board. In the original act there was the implication that member banks could not charge their patrons more than the actual expense involved in collecting or remitting funds, or in supplying exchange. Under the system actually put into practice by the Board some country bankers were deprived of considerable revenues formerly obtained from collection charges. They worked hard to get an amendment per-

mitting them to make what they considered a fair charge. The Board opposed such a concession. While in June, 1917, the bankers succeeded in getting a collection-charge amendment, the Board in turn succeeded in getting the bankers' proposal so worded that it is difficult to see that the bankers made any clear gain. The reasonable charges which the banks are authorized to make are "to be determined and regulated by the Federal Reserve Board." Furthermore, "no such charge shall be made against the Federal Reserve Banks." The reserve banks will, however, be the largest remitters of items for collection in any organized, country-wide collection system.

Inter-district clearings

To systematize the clearings between the reserve banks themselves, it is provided that the Federal Reserve Board may act as a clearing house for them, or it may designate one of the reserve banks to act in that capacity. Moreover, to facilitate transfers, provision was made by an amendment adopted in June, 1917, for the receipt by the United States Treasury of deposits of gold coin or of gold certificates by reserve banks or by reserve agents for their several accounts with the Federal Reserve Board. These deposits are held subject to the Board's order, and the Board may direct that payment be made to any reserve bank or reserve agent. Deposits so made by the reserve banks may be considered a part of their required reserves. The basis of an effective clearing system would thus appear to be provided.

VI. Foreign Operations and Protection of the Gold Reserve

Most of the foreign trade of the United States has heretofore been financed by foreign bankers. The new system permits the home institutions to enter this field of business.

Financing foreign trade

Both member banks and federal reserve banks are benefited by the new provisions. As already noted, member banks are allowed within certain limits to accept on com-

mission drafts and bills of exchange growing out of exports and imports, and these may be sold in the open market or be rediscounted at the federal reserve banks. Under the amendment adopted in August, 1916, a member bank is permitted to accept bills of exchange having not more than three months to run (exclusive of days of grace), drawn under regulations prescribed by the Reserve Board by banks or bankers abroad for the purpose of furnishing dollar exchange as required by the usages of trade in the respective countries. Such drafts or bills may also be acquired by the reserve banks. But no member bank may accept for such purposes for any one person more than 10% of its paid-up and unimpaired capital and surplus, unless the draft or bill of exchange is accompanied by documents securing title or by some other adequate security. In any case, the limit is one-half of the paid-up and unimpaired capital.

Dollar exchange

But beyond these provisions, there are others permitting national banks to establish agencies in foreign countries or to acquire an interest in banks established there. National banks with a capital and surplus of $1,000,000 or more may, with the permission of the Reserve Board, establish branches in foreign countries or in the dependencies. The capital set aside for these branches must be specified, but besides conducting the foreign business of the home bank, the branches may also act as fiscal agents of the United States government. In the case of smaller national banks, an amendment adopted in August, 1915, permits them to subscribe up to 10% of their own capital and surplus to the stock of one or more banks or corporations chartered under United States national or state laws, and principally engaged in foreign banking, either directly or through control, ownership, or agency of local institutions in foreign countries. Full reports and information of all foreign agencies, *etc.*, must be given to the comptroller. Moreover, the bank concerned must enter into an agreement with the Reserve Board to limit its foreign operations

Foreign agencies and connections

and to conduct its foreign business as the Reserve Board may prescribe. The accounts of the foreign branches, *etc.*, must be independently kept. Any violation of the agreement may result in an order to close out the foreign holdings.

Reserve banks' foreign connections

The reserve banks also are given significant privileges in the field of foreign operations. With the consent of the Federal Reserve Board they may, and under the direction and regulation of the Board they must, open accounts in foreign countries; they may appoint correspondents or establish agencies for purchasing, selling, and collecting bills of exchange, and they may buy or sell through such connections bills of exchange growing out of commercial transactions with at least two names and with a maturity not exceeding 90 days exclusive of days of grace. A foreign account opened by one reserve bank may, with the Board's permission, be utilized by other reserve banks. Moreover, the reserve banks may carry accounts here for their foreign correspondents.

Foreign exchange and gold movements

The provisions bearing directly on the operations in the exchange market and on gold movements are of equal interest and importance. In addition to the dealings with their member banks, the reserve banks are permitted to purchase and sell in the open market, at home and abroad, cable transfers of funds, bankers' acceptances and bills of exchange of the kind that are eligible for rediscount, with or without the indorsement of a member bank. Furthermore, they may deal in gold coin or bullion, at home and abroad, may make loans thereon, may exchange federal reserve notes for gold in bullion and in coin, or for gold certificates, and they may contract for loans of gold giving United States bonds and other authorized security as collateral. Finally, under rules prescribed by the Federal Reserve Board, they may buy and sell, at home and abroad, United States bonds and notes, and also bills, bonds, revenue warrants, *etc.*, of states and of the minor political divisions when such bills, *etc.*, have a maturity not

to exceed six months and are issued in anticipation of taxes or assured revenue.

In the chapter dealing with the "Protection of the Reserves," the importance of effective control of domestic rates of discount was set forth. Hence in considering the provisions of the Reserve Act with reference to foreign operations, the power given to the Reserve Board finally to determine the rate of discount at the reserve banks must be recalled. Whether the rates fixed by the Board can be made effective or not is, of course, another question, the answering of which will depend upon the extent to which the market will have to rely on the reserve banks. Control of discount rate

As a final guarantee to the world of the solidity of the whole system, the Federal Reserve Act reaffirms the gold standard, and authorizes the Secretary of the Treasury to purchase gold if necessary with one year 3¢ gold notes of the United States or to borrow it on the security of United States bonds. Guarantee of gold standard

VII. Examinations and Publicity

The system of examination of banks is so thoroughly established in this country that we naturally expect to find provisions of this kind in the Reserve Act. The law requires the comptroller to appoint examiners to make examinations of member national banks twice a year. The foreign branches of the national banks are also subject to examination by the comptroller. If a member bank is a state institution, the Federal Reserve Board may authorize the acceptance of state examinations, but special examinations by the Board may be ordered at any time. The state banks must also make not less than three reports to the Reserve Board. Examinations

The Federal Reserve Board is given broad powers of examination. It may, at its discretion, examine the reserve banks as well as member banks and may similarly require reports from them. Moreover, under its permission, or

even under that of the federal reserve agent, a federal reserve bank may make examination of its member banks. On the other hand, on joint application of ten member banks, the Board must order a special examination of any federal reserve bank.

Publicity

Adequate publicity is also assured. The Federal Reserve Board is required to make an annual report to Congress through the Speaker of the House. It must also issue a weekly statement showing the position of each reserve bank and a consolidated statement for the reserve system as a whole. The statement must show the character and amount of reserve money and amount, nature, and maturity of paper and other investments held by the federal reserve banks.

System a great achievement

The above analysis of the Federal Reserve Act shows that it is based on a sound understanding of the needs to be met. Whether the law will in full measure attain the ends sought must be determined by experience. In the law itself, the caviling critic can find imperfections, repetitions, inconsistencies, and ambiguities. But to the economic student familiar with American legislative methods, the Federal Reserve System will stand as a remarkable achievement in constructive legislation.

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CHAPTER XIV

THE OPERATION OF THE FEDERAL RESERVE SYSTEM

I. Organization of the System

Organization committee hearings

The organization of the Federal Reserve System began with the hearings held by the Organization Committee. The first hearing was held in New York on January 5, 1914. The purpose of these hearings was to sound business opinion as to the establishment of the reserve districts, having in mind the number of the districts to be established, the boundaries of the districts, and the choice of the cities to be designated as federal reserve cities.

The reserve districts

The Organization Committee decided on twelve reserve districts, the maximum permitted by the law. It also laid out the boundaries of the several districts and designated in each of them a federal reserve city. There was naturally some criticism of the committee's choice of reserve cities and of its determination of boundaries, and preparations were made in some cases to carry the objections as soon as possible before the Federal Reserve Board. In an opinion rendered on April 14, 1916, the Attorney General held that the Reserve Board enjoys no power to change the present location of any federal reserve bank, hence no effort has been made to change the selection of reserve cities. There have, however, been readjustments of the boundaries of reserve districts. Northern New Jersey banks and those of Fairfield County, Conn., were added to the district of the New York Federal Reserve Bank. Certain Louisiana parishes were added to the district of the Atlanta bank, while the district of the Chicago bank was enlarged to include the southern part of Wisconsin. The readjust-

ments were made in response to a petition of a majority of the member banks concerned. A map showing the present boundaries of the several districts is reproduced in the Appendix.

Membership

On February 16, 1915, the secretary of the Organization Committee issued a notification that by the 23rd of the month all national banks must signify their intentions with respect to joining the system. By that date 7,465 national banks out of a total 7,493 had signified their intention of joining. They represented over 99% in numbers and 99¾% in capital of all the national banks. Eighteen banks indicated an intention not to join, and ten had not been heard from, although these ten subsequently fell into line. The total capital of the national banks thus brought into the system was $1,054,533,554. Thereafter, as new national banks were organized they entered the system automatically.

National banks

State banks

State banks, on the other hand, have held aloof. In some cases the laws of the states have been held to forbid state banks joining the reserve system, largely because of the requirement that banks shall not subscribe to the stock of corporations. To remove all doubt a good many states adopted special enabling laws. In other states the authorities ruled that there was nothing in state laws to prevent state banks from entering the system if they so chose. At the beginning of 1917, out of a total membership of 7,627 banks, only 38 banks were state institutions, although it must be noted that a considerable number of the additions to the system since its organization represented state banks converted into national banks.[1]

Reserve banks

The minimum capital of $4,000,000 required for the several reserve banks was assured at the outset. There was no opportunity or occasion for popular or for governmental subscriptions. The subscriptions for the several

[1] In Sept., 1917, 87 state banks were in the system. It is believed that as a result of the favorable amendments adopted in June, 1917, many more state banks will come into the system.

reserve banks were announced by the Organization Committee as follows:

Dist.	Res. City	Capital
1	Boston	$9,931,740
2	New York	20,687,616
3	Philadelphia	12,993,013
4	Cleveland	11,621,835
5	Richmond	6,543,281
6	Atlanta	4,702,780
7	Chicago	13,151,925
8	St. Louis	6,219,323
9	Minneapolis	4,702,864
10	Kansas City	5,594,916
11	Dallas	5,634,091
12	San Francisco	8,115,524
	Total	$109,898,902

Since the organization of the system changes have been made through the addition of new members and through the readjustment of the boundaries in several of the districts. Under the law only half of the subscribed capital needs to be paid in. Hence in the following table, covering the capital situation as it appeared in the Reserve Board's weekly statement of June 1, 1917, the figures under capital are for capital paid in.

Dist.	Res City	Capital
1	Boston	$5,029,000
2	New York	12,060,000
3	Philadelphia	5,264,000
4	Cleveland	6,248,000
5	Richmond	3,436,000
6	Atlanta	2,388,000
7	Chicago	7,057,000
8	St. Louis	3,168,000
9	Minneapolis	2,467,000
10	Kansas City	3,165,000
11	Dallas	2,754,000
12	San Francisco	3,949,000
	Total	$56,985,000

Date of opening

Although at a conference in October, 1914, a majority of the directors of the reserve banks voted to have the banks begin business on November 30, Secretary of the Treasury McAdoo made an announcement fixing the opening on November 16. Mr. McAdoo stated that he was impelled to this decision "particularly because of the emergency conditions in the South and the confident belief that the prompt opening of the reserve banks will be very helpful to the cotton situation and to general business in all sections of the country." Accordingly, on November 16, the several reserve banks opened their doors for business. The date was hailed by Mr. P. M. Warburg as America's economic "fourth of July."

The Federal Reserve Board

President Wilson's nominations for the five appointive members of the Federal Reserve Board were Paul M. Warburg of New York, W. P. G. Harding of Birmingham, Ala., W. C. Miller, formerly of Leland Stanford Jr. University, Thomas D. Jones of Chicago, and Charles S. Hamlin, Assistant Secretary of the Treasury. The Senate Banking and Currency Committee reported favorably on Messrs. Hamlin, Harding, and Miller, but deferred action on Messrs. Jones and Warburg. Mr. Warburg's banking affiliations and Mr. Jones's connection with the International Harvester Company were subjected to an investigation by the committee. Mr. Jones's name was subsequently withdrawn by the President at his own request, and Mr. Frederic Delano, of Chicago, was nominated in his stead. In the meantime, the Great War had broken out, so Mr. Warburg and Mr. Delano were hastily confirmed on August 6, 1914. Secretary of the Treasury McAdoo and Comptroller of the Currency Williams were the two *ex-officio* members. The five appointed members took the oath of office on August 10. Mr. Hamlin was designated as governor and Mr. Delano as vice-governor.

Activities

The first formal session of the Board was held on August 14, 1914. It selected as its first secretary Dr. H. Parker Willis, who had played a leading part as committee expert

in the fashioning of the Federal Reserve Act in Congress. Almost instantly the Board's influence was helpfully felt. It took the leadership in the establishment of a special gold pool to tide over the foreign exchange market. It also supported a plan suggested by St. Louis bankers to establish a \$150,000,000 cotton loan fund. Furthermore, it lost no time in formulating regulations concerning commercial paper, domestic clearings, foreign exchange operations, *etc.*, the general supervision of which is put by the Federal Reserve Act into the Board's hands. In the administration of its office the Board has conceived of its function as a broad one. It has not only acted as a far-sighted and broad-minded leader of the money market, but it has also acted as an expert committee advising Congress. Amendments to the Reserve Act of far-reaching importance were adopted at its recommendation with amazing little change or question by Congress. It supplies a leadership the need of which was strongly felt under the old system.

The Federal Advisory Council was organized as soon as the Federal Reserve System got under way. As required by law one member of the Council was elected by the reserve bank in each district, so that the Council comprises a membership of twelve. Although the Council enjoys only advisory powers it has held quarterly meetings, and the Reserve Board has made a practice of getting the Council's advice on all policies of large importance. Reports of its meetings have been regularly published in the *Federal Reserve Bulletin*. Federal Advisory Council

II. Reserve Bank Deposits

The deposits in the federal reserve banks come from member banks on the one hand and from the government on the other. Deposits of prescribed reserves, it will be remembered, are required of member banks. Government deposits are not mandatory but are made at the discretion of the Secretary of the Treasury.

Bank deposits

As the reserve banks opened for business on November 16, the first reserve instalment from member banks was due on that date. The total cash paid in by November 20 was $241,408,000, of which $204,945,000 was in gold and gold certificates and the remainder in legal-tender notes, silver certificates, and fractional coin. By December 31, 1914, the cash holdings of the reserve banks had increased to $255,647,000; by December 30, 1915, through periodic reserve payments and otherwise to $358,488,000, and by December 30, 1916, to $474,590,000. The total reserve on June 1, 1917, was $526,458,000.

As the deposit balances of member banks are built up through loan and discount operations as well as through deposits of actual cash, and as the cash required as reserve is only 35% of the superimposed deposit liability, the deposit liabilities of the reserve banks have grown more rapidly than the cash itself. The following table, based on the figures given in the Reports of the Reserve Board, shows the increase of net reserve deposit liabilities from November 20, 1914, to June 1, 1917.

Net Reserve Deposit Liabilities of Federal Reserve Banks

Nov. 20, 1914	$227,880,000
Dec. 31, 1914	256,018,000
Dec. 30, 1915	400,012,000
Dec. 29, 1916	668,786,000
June 1, 1917	721,146,000

Government deposits

For some time after the establishment of the Federal Reserve System no attempt was made by the government to utilize the reserve banks. On August 20, 1915, Secretary McAdoo issued a statement in which he said that "public moneys had not yet been deposited merely because the banks do not need them now and have not yet found full use for their present resources, which appear to be more than adequate for the demand at this time." It had been hoped by many that the government would at the outset deposit all available funds in the reserve banks and thus

establish a firm precedent for such a policy. The secretary's statement, however, shows that the treasury department is to maintain all the discretion that the law itself provides.

First made in 1915

The first use of the reserve banks was made by the government in connection with the handling of the crops in 1915. Special deposits were made in the Richmond, Atlanta, and Dallas banks, $5,000,000 being placed in each. The deposits were made by adding to the credit of the banks concerned in the gold settlement fund at Washington,[1] although the Dallas bank drew $1,000,000 in currency. The secretary offered to make similar deposits to the credit of the St. Louis, *Kansas City*, and *Minneapolis banks*, but these banks indicated that they were amply supplied with funds.

Reserve banks as fiscal agents

On November 23, 1915, a more important step in this connection was taken. On that date the Secretary of the Treasury formally designated the reserve banks as fiscal agents of the United States government, and on January 1, 1916, the treasury transferred $9,000,000 to the reserve banks by withdrawing funds from national bank depositories in the cities where the reserve banks are located. Thenceforward the treasury employed the reserve banks extensively in fiscal operations of the government, especially in connection with the sale of the short-time treasury notes and of the $2,000,000,000 worth of the 3½%, 15-30 bonds provided for in the $7,000,000,000 "Liberty Bond" issue.

III. Federal Reserve Bank Notes

Conversion of bonds and issue of notes

Federal reserve bank notes, it will be recalled, are obligations of the reserve banks themselves, and are based on bonds acquired from the national banks in the open market or through allotment by the Federal Reserve Board up to the maximum of $25,000,000 per year, as provided in

[1] See below, p. 287.

Section 18 of the Reserve Act. Bonds acquired from member banks and bearing the circulation privilege may be used as a basis of federal reserve bank notes, or, if they be 2%, may be converted into 3% one-year gold notes or 3% thirty-year bonds. In a communication to the Reserve Board under date of February 28, 1916, the Secretary of the Treasury announced that $30,000,000 worth of 3% bonds and notes would be available for conversion during the year 1916.[1] By October the full thirty millions had been converted and a corresponding amount of two per cents were withdrawn. As the reserve banks had purchased in the open market the bonds necessary for this purpose it was not necessary for the Reserve Board to enforce the purchase of allotments. Another thirty millions of the 3% notes and bonds has been made available for the year 1917. The reserve bank of Kansas City in March, 1916, was the first to avail itself of the privilege of issuing the federal reserve bank notes. The Dallas bank followed in September. By the end of October, however, the issue of the Dallas bank had been withdrawn and before the end of December the Kansas City bank had also retired its quota. Liability has been extinguished through the deposit of lawful money and through return of notes for destruction. The combined issue had reached a maximum of only $3,214,000 on September 15, yet during 1916 national bank-note circulation decreased $44,511,968.

IV. Federal Reserve Notes

Issue

Federal reserve notes appeared in circulation shortly after the opening of the reserve banks. The amount outstanding on November 27, 1914, was reported as $2,700,000. By December 31, 1914, this had increased to $10,608,000; by December 30, 1915, to $189,026,000; and by December 29, 1916, to $275,353,000. A considerable part of this

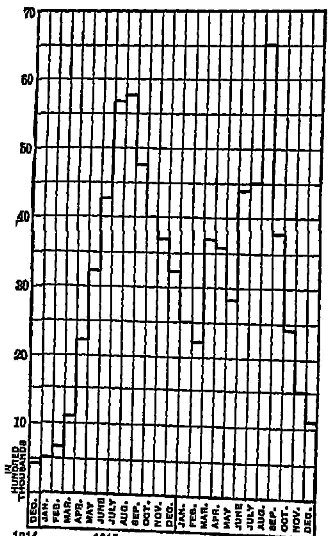
[1] Section 18 required the purchase of bonds by the reserve banks only two years after the passage of the act.

issue, however, was covered by gold or lawful money deposited with federal reserve agents. Net liabilities for outstanding reserve notes for the dates indicated were as follows:

Nov. 27, 1914	$2,475,000
Dec. 31, 1914	3,774,000
Dec. 30, 1915	13,486,000
Dec. 29, 1916	14,130,000
June 1, 1917	27,776,000

Elasticity

Experience with federal reserve notes has not yet been sufficiently prolonged to permit safe conclusions concerning



Net Liability for Federal Reserve Notes of the Dallas Reserve Bank, Last Friday of each Month, Dec., 1914–Dec., 1916

their elasticity. Moreover, since the outbreak of the Great War the heavy importations of gold have rendered the

whole money and credit situation in the United States so abnormal that such conclusions as might be drawn would hardly be the same as those that would be arrived at under normal conditions. To these considerations must also be added the fact that, at least as far as the total issue of reserve notes is concerned, experience thus far shows little. The movement in the net liability of the banks for their notes is the real criterion of elasticity of note issue, but the change here has been on too small a scale to suggest real flexibility for the system as a whole. As an indication of possibilities, however, there is given in the preceding diagram the movement of the net liability of the Dallas reserve bank for the two-year period, December, 1914–December, 1916.

V. Rediscounting and Open Market Operations

It will be recalled that the Federal Reserve Act imposes on the Federal Reserve Board the duty of defining the commercial paper made eligible by the act for rediscounting or for open market purchases on the part of the reserve banks. One of the first duties that the Reserve Board had to face was this definition of paper. The Board dealt with the matter in a series of circulars and regulations, the later of which modified or amplified those that preceded. The regulations that now prevail [1] can be found in full in the "Circulars and Regulations, Series of 1917." [2]

Rediscounting under section 13

Regulation A of this series deals with the paper eligible for rediscounting under Section 13 of the Reserve Act. The regulation first lays down the general conditions under which a note, draft, or bill of exchange is eligible for rediscount under this section.

Eligible paper

(a) "It must be a note, draft, or bill of exchange the proceeds of which have been used or are to be used in producing, purchasing, or carrying or marketing goods in one or more of

[1] June 1, 1917.

[2] See Appendix.

the steps of the process of production, manufacture, or distribution.

(b) "It must not be a note, draft, or bill of exchange the proceeds of which have been used or are to be used for permanent or fixed investments of any kind, such as lands, buildings, or machinery.

(c) "It must not be a note, draft, or bill of exchange the proceeds of which have been used or are to be used for investments of a purely speculative character.

(d) "It may be secured by the pledge of goods as collateral, provided it is otherwise eligible."

In making an application for rediscount the member bank is required to certify on a form provided for the purpose that "to the best of its knowledge and belief" the paper offered is one of the kinds described.

Included in Regulation A are divisions dealing with special types of paper, namely, promissory notes, drafts, bills of exchange and trade acceptances, six months agricultural paper and commodity paper. Each of these groups is separately defined and special conditions of eligibility are prescribed.

Promissory notes

A promissory note is defined "as an unconditional promise in writing signed by the maker, to pay, in the United States, at a fixed or determinable future time, a sum certain in dollars to order or to bearer." The obligation is imposed on the reserve bank to satisfy itself that the note is eligible, but as a promissory note might be used for "investment" as well as for "commercial" purposes, and as the reserve bank might, therefore, be uncertain as to its eligibility, the Board has provided that "compliance with the requirements in this respect might be "evidenced by a statement of the borrower showing a reasonable excess of quick assets over current liabilities." The member bank offering the promissory note for rediscount must state whether the note was discounted originally for a depositor or for another member bank, or whether it was purchased from a non-depositor. It must also certify whether a financial statement of the borrower is on file. Financial

statements are required to be kept on file for all notes offered for rediscount which have been purchased from sources other than a depositor or a member bank. For other notes the reserve banks are allowed to use their discretion in satisfying themselves as to eligibility. Direct authorization is given "to waive the requirement of a statement with respect to any note discounted by a member bank, for a depositor, or another member bank:

(1) "If it is secured by a warehouse, terminal, or other similar receipt covering goods in storage.

(2) "If the aggregate of obligations of the borrower rediscounted and offered for rediscount at the federal reserve bank is less than a sum equal to 10% of the paid-in capital of the member bank and does not exceed $5,000."

Single name paper included

It is thus seen that single-name paper, so common in American bank portfolios, is provided for in the regulations concerning rediscounting, but its use is hedged about with restrictions in order to safeguard from the abuses that have often characterized it in the past such proportion of it as gets into federal reserve banks under these regulations.

Drafts, bills of exchange and trade acceptances

A draft or bill of exchange is defined as "an unconditional order in writing, addressed by one person to another, other than a banker (see "Bankers' Acceptances," below) signed by the person giving it, requiring the person to whom it is addressed to pay, in the United States, at a fixed or determinable future time, a sum certain in dollars to the order of a specified person; and a trade acceptance is defined as a draft or bill of exchange drawn by the seller on the purchaser of goods sold and accepted by such purchaser." The determination of the eligibility of paper of this class is put squarely up to the reserve banks themselves unless the paper "presents *prima facie* evidence thereof or bears a stamp or certificate affixed by the acceptor or drawer showing that it is a trade acceptance."

Six months' agricultural paper is defined as a note, draft, bill of exchange, or trade acceptance issued for agricultural purposes or based on live stock, that is, paper of these classes "the proceeds of which have been used, or are to be used, for agricultural purposes, including the breeding, raising, fattening, or marketing of live stock, and which has a maturity at the time of discount of not more than six months, exclusive of days of grace." To be eligible for rediscount six months' agricultural paper, whether a note, draft, bill of exchange, or trade acceptance, must comply with the eligibility regulations governing these types of paper. Six months' agricultural paper

Commodity paper is defined as a "note, draft, bill of exchange, or trade acceptance accompanied and secured by shipping documents or by a warehouse, terminal, or other similar receipt covering approved and readily marketable, non-perishable staples properly insured." In providing tests for the eligibility of this paper the Board prescribed compliance with the eligibility regulations governing those classes of paper to which the commodity paper might belong. The Board prescribed also conformity to the requirements of the federal reserve bank relating to shipping documents, receipts, insurance, *etc.* But further than this, in view of the special rates of rediscount authorized for this class of paper, the Board provided that the rate of discount or interest, including commission charged the maker of the paper, should not exceed 6% per annum. Commodity paper

A banker's acceptance is defined "as a draft or bill of exchange of which the acceptor is a bank or trust company, or a firm, person, company, or corporation engaged in the business of granting bankers' acceptance credits." The Board's regulation further provides that "to be eligible for rediscount the bill must have been drawn under a credit opened for the purpose of conducting, or settling accounts resulting from, a transaction or transactions involving (1) the shipment of goods between the United States and any foreign country, or between the United Bankers' acceptances

States and any of its dependencies or insular possessions, or between foreign countries, or (2) the domestic shipment of goods, provided shipping documents are attached at the time of acceptance; or it must be a bill which is secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title covering readily marketable staples." The regulation also permits a federal reserve bank to "acquire drafts or bills drawn by a bank or a banker in a foreign country or dependency or insular possession of the United States for the purpose of furnishing dollar exchange and accepted by a member bank in accordance with the provisions of the special regulations dealing with this subject." Dollar-exchange drafts or bills may be "acquired before acceptance provided they have the indorsement of a member bank." The determination of satisfactory evidence of eligibility is left to the reserve bank itself.

Open market operations

Regulation B, Series of 1917, deals with open-market operations of the reserve banks. Here, too, the Board, after summarizing the statutory provisions, has one section dealing with the general character of eligible bills and acceptances followed by special sections dealing respectively with bills of exchange and trade acceptances, and with bankers' acceptances.

General character of eligible bills and acceptances

In determining the general character of paper eligible for open-market purchases the Board laid down the following rules: Such paper

(*a*) "Must not have been issued for carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the government of the United States.

(*b*) "Must not be a bill the proceeds of which have been used or are to be used for permanent or fixed investments of any kind, such as land, buildings, or machinery, or for investments of a merely speculative character.

(*c*) "Must have been accepted by the drawee prior to purchase by a federal reserve bank unless it is accompanied and secured by shipping documents or by a warehouse, terminal, or other similar receipt conveying or securing title.

(*d*) "May be secured by the pledge of goods or collateral, provided it is otherwise eligible."

In addition to these general requirements, however, there are special provisions concerning the two classes of paper dealt with in the regulation.

Bills of exchange and trade acceptances

The definition of bills of exchange and of trade acceptances in this regulation is the same as in Regulation A. The basis and the test of eligibility is also the same, excepting that in open-market purchases "unless indorsed by a member bank, a bill is not eligible for purchase until a satisfactory statement has been furnished of the financial condition of one or more of the parties thereto."

Bankers' acceptances

The definition of bankers acceptances in Regulation B is also the same as that in Regulation A, and there is little difference in the determination of eligibility. In the case of bills drawn abroad, however, for the purpose of creating dollar exchange, the Board first determines whether in the place where the bill is drawn the usages of trade require the drawing of bills of this character. In determining eligibility the reserve banks are in this regulation also left to their own devices, except that it is provided that bills accepted by national banks need no special evidence. When, however, a reserve bank purchases acceptances not indorsed by member banks, the acceptor must furnish "a satisfactory statement of financial condition in a form to be approved by the Federal Reserve Board" and must agree "in writing with a federal reserve bank to inform it upon request concerning the transactions underlying such acceptances."

Member banks' collateral loans

The amendment to the Reserve Act that provided for the extension to member banks of loans based on the promissory notes of the member banks secured by paper eligible for discount or purchase by the reserve banks was so worded that no further regulation was required by the Reserve Board except the approval of rates for such loans. Mention is made of it here because of its obvious importance

to mobility of credit. Immediately after the approval of the amendment the Board sent out a letter to the reserve banks suggesting the establishment of fifteen-day rates for this class of loans.

VI. Development of Commercial Paper Official Rates

Fixing rates

The Reserve Act gives to the Reserve Board the power to review and to determine the "rates of discount to be charged by the federal reserve bank for each class of paper." In the exercise of this authority the Board proceeded in the manner indicated in the following quotation taken from its first report:

> In response to a telegraphic inquiry, each bank submitted its views with respect to the rate of discount thought to be advisable for its district. Upon tabulation and comparison of these results it was found that they did not vary greatly, the rates ranging from 5% to 7% for ninety-day paper. A study of the existing state of affairs satisfied the Board that at the start and until the banks could get a firm footing it should act with prudence and conservatism, and it was consequently voted to fix the rates of discount at from 5½% to 6½%. The rates thus initially established were subsequently lowered from time to time upon application by the respective banks. . . .

Rates in 1914

During the short period from November 16 to December 31, 1914, there was a noticeable decline in the rates. Maturities of 30 days and less dropped from 5½% and 6% to 4½% and 5%; maturities 30 to 60 days declined from 6% and 6½% to 5% and 5½%; 60 to 90 day paper moved from 6% and 6½% to 5½% and 6%. Agricultural paper settled to a 6% basis, although in some districts 6½% had been charged.

Trend during 1915

During 1915 the general development can also be most clearly set forth by quoting from the Board's second annual report (p. 5):

The Board has endeavored during the past year to develop a consistent discount policy graduating its rates according to the maturity and character of paper discounted or purchased in the open market. Beginning at the opening of the system with a comparatively high rate for ordinary commercial paper and with more or less variation between the different districts, the reserve banks have during the year steadily reduced the general level of discount rates and have worked rapidly and effectively toward uniformity for the entire country. It may not be practicable to maintain uniform rates throughout the twelve districts, but they should unquestionably bear a consistent relation one to another, while a very much greater adherence to uniformity than before the enactment of the Federal Reserve Act will undoubtedly be secured.

For the different classes of paper during 1915 the maximum and minimum rates were as follows:

	10 day	30 day	60 day	90 day	Trade Accept. 60 days	Agri. Live Stock	Commodity
Maximum	3½	5	5½	6	4	6	3½
Minimum	3	3½	4	4	3	4½	3

These rates were not, of course, uniform throughout the whole system. The variation as between the districts was, however, not large.

During the year 1916 the Board sums up the discount situation as follows (Annual Report, p. 5): Trend during 1915

> Except for a stiffening toward the close of the year, resulting in an increase of rates in some districts by one-half of 1%, the discount rates prevailing at federal reserve banks have been nearly stationary. . . . There has been no occasion to establish new or special rates designed for the accommodation of particular industries or districts. . . . Not only the farmers but those engaged in all lines of business and industry, were during the year just closed unusually strong and independent from a financial standpoint; and partly because of this fact and partly by reason of the prevailing ease in the money market, the influence of the federal reserve banks upon rates was indirect and potential rather than dominant.

Rates early in 1917

The Board also pointed out that the official rates in European centers were uniformly above the 4% rate at the New York Reserve Bank. The discount rates in effect May 31, 1917, were as follows:

	Within 15 days including member bank collateral loans	16 to 60 days inclusive	61 to 90 days inclusive	Agri. Live Stock over 90 days	Trade Accept.	Commodity
Maximum among all reserve banks	4	4½	4½	5½	4	4
Minimum among all reserve banks	3	4	4	4½	3½	3½
Predominating rate ...	3½	4	4½	5	3½	3½

Credit situation unusual

In considering the development of the discount rates under the Federal Reserve System down to the date of the above table several points must be borne in mind. The reduction of reserve requirements by the Reserve Act itself and the heavy importation of gold from abroad so eased the American credit situation that heavy surplus reserves accumulated. Furthermore, reserves even of the member banks were only incompletely centralized in the reserve banks while at the same time relatively few state banks had joined the system. Hence, except during the flurry in the call-money market toward the close of 1916, and during the "Liberty Bond" campaign in 1917, there had been comparatively little dependence on reserve banks by member banks, and, as the Board itself remarks in its report, the effect of the official rates was potential rather than dominant. To what extent the reserve banks will be able to dominate the credit situation further experience must determine.

Discrimination in favor of special forms of paper

Another circumstance worthy of note in view of the controversy over single-name *versus* two-name paper is the discriminatory rate in favor of the trade acceptance. For all maturities the rates on this form of paper range below

the rates for corresponding classes of eligible single-name paper. The equally favorable treatment of satisfactory commodity paper has already been of great benefit in the marketing of the staple crops.

VII. Volume and Character of Paper Dealings

Commercial paper rediscounted

The commercial paper discounted by the federal reserve banks from November, 1914, to June, 1917, has been gradually increasing in volume, although it has represented a comparatively unimportant factor in the banking situation as a whole. The total amount of commercial paper discounted January–December, 1915, was $161,353,000. For the same period, 1916, the total was $207,870,500.

Collateral loans

Collateral loans to member banks were first provided for in September, 1916. During the remainder of the year the advances to member banks in this form totaled $39,026,050. Of this total, $29,892,400 was advanced during the month of December alone.

Trade acceptances

Trade acceptances were discounted for the first time in September, 1915. To the close of that year $1,958,800 in this form of paper came to the reserve portfolios. The total for 1916 was only $5,113,500.

Commodity paper

Commodity paper was also discounted for the first time in September, 1915. Up to the end of that year $10,315,100 of this form of paper had been acquired through discounting operations. During 1916 the total reached $16,813,500.

Open market purchases

The open-market purchases of commercial paper by the reserve banks have been confined to trade and bankers' acceptances. In the field of bankers' acceptances the great increase in American foreign trade and the substitution of the "dollar" for the "pound sterling" in financing this and other trade brought especially notable results. A complete analysis of the weekly development of the open-market purchases of acceptances by the reserve banks is given monthly in the *Federal Reserve Bulletin*. The pur-

Bankers' acceptances

chases of bankers' acceptances by the reserve banks shows a steady increase. During 1915 the reserve banks bought $61,924,000 of this class of paper. During 1916 the purchases leaped to $369,582,700. On February 19, 1917, the reserve banks reported a holding of $123,679,000 in bankers' acceptances purchased in the open market. The acceptors of these bills were member banks, state banks, trust companies, and private banks. While the majority of the acceptances are by member banks the trust companies come second and private bankers third. On January 1, 1917, for example, out of a total of 121,154 bills, 66,803 had been accepted by member banks, 34,625 by trust companies, 18,224 by private bankers, and 1,502 by state banks.

Trade acceptances

Purchases of trade acceptances in the open market were reported for the first time in February, 1916. The original purchases reported ran under a half-million dollars, but there has been a steady increase since that time. During 1915 the purchases totaled $2,921,000, but they increased during 1916 to $16,333,300. At the end of May, 1917, the trade acceptances held by the reserve banks amounted to more than $5,000,000.

VIII. Distribution of Discounts and Paper Purchases

The facilities provided by the Reserve System in connection with commercial paper have not been uniformly utilized in the several reserve districts. The following table shows the distribution among the reserve districts of the percentages of the different forms of paper rediscounted or purchased in the open market for the period indicated. In the last column there is shown also the number of member banks in each district which have availed themselves of the rediscount privileges:

Discount and Purchases of Commercial Paper, and Member Banks Securing Accommodation

1914-1915 and 1916

	30 day		60 day		90 day		Agricultural Live Stock		Commodity		Bankers' Acceptance		Trade Acceptance		Collateral Loans Sep.-Dec. 1916 in Thousands	No. of Member Banks Rediscounting	
	1914 —15 %	1916 %	1914 —15 %	1916 %	1914 —15 %	1916 %	1914 —15 %	1916 %	Sep. Dec.15 %	1916 %	Feb. Dec. 1915 %	1916 %	Sep. Dec. 1915 %	1916 %		1914 —15	1916
Boston	2 9	20.4	1.2	8.0	0.8	1.3	0.1	....	0.0	0.0	21.7	13.6	.00	8.41	$ 1,882.1	29	56
New York ...	16 7	18.1	2.9	5.3	2.2	5.0	0.1	0.1	0.0	0.0	39.8	32.0	.29	3.26	7,939.5	54	62
Philadelphia..	11.1	12.8	2.4	2.2	1 6	1.2	0 2	.3	0.0	0.0	11.7	13.8	.00	1 46	13,644.3	70	143
Cleveland. ...	3.8	4.6	3.4	2 3	2.0	.9	1 7	.9	0 0	0.0	4.6	7.1	.25	3.43	2,385.0	88	50
Richmond.. .	18.3	9.9	31.2	30.0	30.3	31.6	9.6	6.7	27 93	41.8	.4	2.9	23.00	29.47	3,483.0	226	202
Atlanta	9.0	6.4	21.4	20.3	24.7	22.7	16.9	6.7	68.17	44 6	.1	3.2	51.41	31.11	1,512.3	248	209
Chicago	10.6	17.5	7.1	8.5	5.5	6.0	13.2	17.6	00 0	0 0	8.9	7.0	.00	.16	5,417.5	221	212
St. Louis......	6.1	4.2	4.5	5.8	4.0	6.2	3.0	2 6	.96	9.12	3.8	5.4	8.56	12.25	1,302.5	131	114
Minneapolis...	2.7	2.5	2.3	5 0	2.2	2.0	9 9	12.2	.24	.12	2.2	8-5	.00	.81	1,056.0	197	174
Kansas City ..	7.1	1.3	6.3	4.3	4.9	5.1	8.4	13 3	0.0	2.15	2.8	2.1	4 48	3.93	115.8	274	189
Dallas	6.1	2.0	14.2	11.8	16.2	16 1	32.9	37.2	2.84	1.34	0.0	.9	8.2	4.67	287.5	366	301
San Francisco	5.6	· .4	3.1	1.5	5.6	1.9	4.0	2.4	.36	.87	5.0	8 5	3.78	1.04	000	169	76
															$39,025.5	2078	1788

(Prepared from 1915 and 1916 Reports of Federal Reserve Board, and from *Federal Reserve Bulletin* for 1916.)

A glance at this table discloses that banks in the South and West have utilized the facilities of the Reserve System more than the banks in the East. Yet in foreign operations represented by acceptances the Boston, New York, and Philadelphia reserve banks have done the bulk of the business. In the main, borrowing by member banks themselves is still from each other. This is indicated in the following table compiled from the December 27, 1916, "statement of condition" issued by the Comptroller of the Currency:

(*All Member Banks*)

	District Number	Number Banks	Bills payable with other than Reserve Banks (Thousands)	Bills payable with Reserve Banks (Thousands)
Boston	1	398	$ 4,243	$ 610
New York	2	622	4,446	94
Philadelphia	3	631	1,256	3,503
Cleveland	4	753	2,554	....
Richmond	5	519	4,879	557
Atlanta	6	383	2,572	760
Chicago	7	991	2,319	1,580
St. Louis	8	468	868	645
Minneapolis	9	764	1,223	334
Kansas City	10	943	1,003	40
Dallas	11	619	1,035	....
San Francisco	12	523	716	10
Total		7,614	$27,114	$8,133

IX. The Organization of Domestic Clearings

The division of the country into twelve reserve districts with individual reserve banks obviously suggests two main classes of domestic clearings, namely, those within the several districts and those between the districts. The Reserve Act itself, in providing that reserve banks might be required to act as clearing houses for their member banks, and that the Reserve Board might act as a clearing house for the reserve banks or might designate one of the reserve

banks for this purpose, clearly foreshadowed the development of clearings between the reserve banks themselves as well as intra- and interdistrict clearings between member banks. As might be expected, *interdistrict* clearings involving the reserve banks themselves were first provided.

X. Reserve Bank Clearings

Gold settlement fund

The subject of clearing among the reserve banks was first taken up by the Board in April, 1915. On May 8 of that year the Board[1] issued a circular and regulation providing for the establishment of the gold settlement fund. By May 24 each reserve bank was required to forward to the United States Treasury or to a subtreasury, in gold or gold certificates, $1,000,000 plus its total net indebtedness to all the other federal reserve banks. The United States treasurer issued to the Reserve Board "gold order certificates" for the amounts so forwarded, and these certificates in the hands of the Board made up the "gold settlement fund." Each reserve bank was required to maintain in the gold settlement fund a balance of at least $1,000,000.

Process of clearing

The process of clearing through this fund was provided for as follows: Each reserve bank keeps "accounts due to" and "accounts due from" other reserve banks growing out of items received or sent. On each Wednesday night the reserve banks telegraph to the Board (confirmation being sent by mail) the amounts in even thousands due to the several other reserve banks. On Thursday the proper entries are made by the Board's "settling agent," and the several credits, as well as the net debit or credit balances, are telegraphed to the banks. On receipt of the telegram each reserve bank makes the proper debit and credit entries and the difference between them equals the net debit or credit to the gold settlement fund as advised in the telegram. Deficits must be made good in gold, gold

[1] Regulation L, Series 1915. See 1915 Report of Reserve Board, p. 77.

certificates, or gold order certificates, or by credit operations effected by the debtor bank with other reserve banks having a balance with the gold settlement fund. Any reduction in the required balance of $1,000,000 must be made good on or before Tuesday of the week following the clearings from which the deficit results. Excessive balances may be drawn down through the treasury or subtreasuries, although the balances in the gold settlement fund may be included in lawful reserves. The expense of handling the business through the fund is apportioned among the twelve reserve banks.

Practical results

The gold settlement fund was a success from the outset. To ascertain the amount which each bank should deposit a preliminary settlement was made May 20, 1915. The amount required was about $18,000,000. Thereafter the weekly clearings grew in volume and rose to a record of $412,103,000 May 17, 1917. During 1915 the total clearings equaled $1,052,649,000 with a net change in the ownership of gold of 8.14%. During 1916 the total clearings equaled $5,533,966,000 with a net change in gold ownership of 4.0453%. The Reserve Board in its 1915 report (p. 79) says that "a noteworthy feature in the operation of the fund has been the avoidance of the necessity for shipment of funds between federal reserve banks." It also adds that "at only one subtreasury have the withdrawals exceeded the deposits, and as the fiscal operations of the Treasury Department had concentrated a surplus of cash at that point, no shipment was necessary to meet this excess of withdrawals."

Transfers through fund

In addition to the clearing operations carried on through it, the gold settlement fund has been employed for other purposes. Transfers are frequently made from one district to another through the gold settlement fund by simple bookkeeping entries. The June, 1917, *Federal Reserve Bulletin* states that the heavy gold imports ultimately destined for the industrial centers were transferred from New York through the gold settlement fund. The federal reserve

bank of New York would deposit gold in the New York subtreasury. Credit would be given in the gold settlement fund and transfers to the other banks would then be made. Some of the southern banks also made transfers through the gold settlement fund to the treasury and had fractional currency shipped from the nearest subtreasuries.

Reserve agents account

Similarly in September, 1915, through the adoption of a special resolution the Board directed that an account be opened by the settling agent of the gold settlement fund for each federal reserve agent. The settling agent receives from the reserve agents, or from the federal reserve banks on account of such agents, deposits of gold certificates to be held subject to the order of such agents. In this way a reserve bank can obtain funds from its reserve agent by making transfers from the gold settlement fund. During 1915 the reserve banks made transfers of gold to their reserve agents through the fund amounting to $52,460,000 net. During 1916 the amount so transferred was $73,040,000.[1]

XI. Member Bank Clearings and Collections

Difficulties in reorganizing clearings

Owing to the system of collections and exchange that had grown up under a banking system based on scattered reserves the introduction of a new organization of clearings was attended by numerous difficulties. These difficulties, the Board pointed out in its 1915 report, were both technical and legal. The technical difficulties grew mainly out of the objection of bankers to the withdrawal of their customary exchange charges. The Board[2] recognized the fact that the clearing problem is essentially a reserve problem, hence as the Reserve Act "had granted a period of three years within which to effect the final transfer of reserves to federal reserve banks (balances with correspondents counting as reserves in the meantime)," the Board granted that "there was a certain ground for objec-

[1] 1916 Report of Reserve Board, p. 110.

[2] *Ibid.*, p. 15.

tion to the immediate introduction of complete clearance at federal reserve banks." The Board also recognized that as long as most of the state banks remain outside the system "it may be necessary for some member banks to collect and clear through their correspondents in reserve cities." The Board states that "so complex was the situation and so serious the difficulty involved in the compulsory application of any system, however carefully conceived, that a voluntary rather than a compulsory system was decided upon."

Plan of St. Louis and Kansas City reserve banks

Two of the reserve banks had instituted compulsory intra-district clearings systems before the Board promulgated its voluntary plan. Early in December, 1914, the St. Louis and the Kansas City reserve banks had started compulsory clearances. The St. Louis bank later made its system voluntary and fully 80% of the banks remained. In June, 1915, however, the voluntary system was generally introduced.

Voluntary system introduced

On March 4, 1915, the Reserve Board announced its determination to introduce a voluntary plan for clearances at all federal reserve banks where a clearing plan was not already in operation. The Board did not attempt to prescribe details but left the matter to the federal reserve banks. Substantially similar circulars were sent out by the reserve banks to their several member banks. The circulars announced a voluntary plan covering at first simply checks and drafts within each district. There was, however, no intention to supersede the local clearing houses.

Rules of system

The rules provided that each bank joining the system authorized its reserve bank to charge immediately on receipt, against its account, subject to payment by such bank at its banking house, checks and drafts drawn upon it and payable on presentation, deposited by other banks of the system. Each bank undertook to provide the funds above required reserves that might be necessary for this purpose. The reserve bank was to mail at the close of each day

the items received, and the member banks were to advise the reserve banks the day of receipt and of credit for such items. Unpaid items were to be returned for credit. The reserve banks were to be authorized to send items direct to the banks on which they were drawn, or, at their discretion, for collection to other banks. Banks might withdraw from the clearing system on 30 days' notice. Lists of members of the system were to be published from time to time. No exchange charge was to be made or paid by the reserve banks because the system was regarded as reciprocal and of mutual benefit.

System not successful

The banks did not, however, take enthusiastically to the plan. About 1,300 banks were included in the St. Louis and the Kansas City districts. About 1,150 banks in other districts joined the system. To quote from the Board's 1915 report (p. 16):

> This is considerably less than 25% of the institutions eligible for membership, and the proportion has been so small as to prove a severe disappointment to those who had confidently expected that the foresight and enlightened self-interest of the member banks would speedily accomplish the desired result. . . . This slowness is largely due to the failure of jobbers and merchants to appreciate the advantages of the clearance system and to enlarge its membership by insisting that their own banks join and coöperate in the plan.

The Board then went on to say that the subject had been reopened. It stated that it was the "plain conception" of the Reserve Act "that the reserve banks should, to a very large extent, if not entirely, perform the work" being done by correspondent banks. "This means that the reserve balances to be carried in the future by the reserve banks instead of by the correspondent banks should serve as the basis for a system of clearing and collecting the exchanges of the country." The Board promised that "whatever can be done to bring about the prompt and effective use of this new system of bank settlement will be done."

Country-wide clearing and collection plan

A few months later, namely, on May 1, 1916, the Board issued a circular announcing its country-wide clearing system. The salient points of this circular can be best given by quoting from the press statement prepared by the Board and reproduced in the May, 1916, *Bulletin* (p. 260).

(1) The federal reserve banks will accept at par all checks from member banks, whether drawn against other member banks, non-member banks, or private banks. An exception is made at the outset in the case of checks drawn against non-member banks which cannot be collected at par.

(2) All checks thus received from member banks will be given immediate credit entry, although amounts thus credited will not be counted as reserves nor become available until collected.

(3) In order to enable member banks to know how soon checks sent in for collection will be available either as reserves or for payment of checks drawn against them, time schedules, giving the minimum time for collection, will be furnished by each federal reserve bank to its member banks.

(4) The actual cost, without profit, of the clearing and collection of checks will be paid by the federal reserve banks and assessed against the member banks in proportion to their sendings.

(5) The whole plan is based on generally accepted principles under which clearing and collection plans have long been operated. A federal reserve bank will not debit member bank's reserve account with items forwarded to it for collection until the remittance of the member bank, in payment of such items, shall have had time to reach the federal reserve bank.

Modus operandi

This "country-wide" clearing and collection plan was to go into operation on June 15, but on May 22, owing to protests by the banks, the Board voted to defer the opening date until July 15. The Board carefully pointed out that the use of the clearing system was not compulsory for any bank, but it was also careful to mention that every bank must maintain the statutory reserves and must pay without deduction checks drawn upon itself and presented at its own counters for payment. Moreover, remittance by the reserve bank through the mail is regarded as such presentation and the member bank must settle by

acceptable checks on other banks or by remittance of lawful money or federal reserve notes at the expense of the federal reserve bank. Provision is also made for the acceptance for credit and collection by the reserve banks of checks on non-member institutions that pay their checks at par. This does not mean gratuitous collection. The plan provides for a small service charge against the banks that send in items for collection.

Practical results

The results of the working of this plan can be best set forth in the words of the Reserve Board itself:

> It was estimated by the Board that as soon as the new clearing system could be put into operation checks upon about 15,000 national banks, state banks, and trust companies throughout the United States would be collected by the federal reserve banks at par, subject to the small service charge above referred to. As any bank will be likely to lose desirable business when checks drawn upon it are at a discount, while checks drawn upon a nearby competitor circulate at par, it is believed that in the near future checks upon all banks in the United States can be collected at par by federal reserve banks. Many banks have found it necessary hitherto to maintain balances with a number of correspondents for exchange purposes, thus compelling them to keep an undue proportion of their funds away from home. Under the new plan the number of banks upon which par collections are being made was, on December 15, over 15,000. In other respects also the plan is working as anticipated. The total daily clearance at all federal reserve banks now aggregate over $125,000,000.[1]

Local differences in practice

Thus a country-wide clearing and collection system may be said to have been successfully begun. The Board laid down the general outline of the plan and left the reserve banks to fill in the details. Individual methods and practices are, of course, permitted, and hence there are variations in detail. Thus it may be mentioned that, anticipating dealings in exchange on federal reserve cities, the St. Louis bank offered to quote rates for buying and selling such exchange. The Dallas bank handles its clearing and collection system in clearing house form, each bank being

[1] 1916 Report, p. 10.

charged or credited each day, not for the total amounts, but for net differences. A settlement slip is sent to each debtor bank which will authorize the reserve bank to charge its account for the amount due. Most interesting of all, however, was the taking over on July 15, 1916, by the Boston Reserve Bank of the management and operation of the Boston Clearing House. The reserve bank takes over all the country collections, but the clearing house association preserves its status as a voluntary organization, maintaining supervision over its own members, conducting its daily clearings, *etc.* The reserve bank furnishes the equipment, *etc.*, while the officers and clerks of the clearing house are employees of the reserve bank. When, however, the clearing balances are once established, all settlements are effected through the reserve bank—as has been the practice in Boston since the reserve bank opened.

Cost and volume of transactions

The service charge is 1.5 cents per item at eight of the reserve banks. Those having a different charge and their respective charges are as follows: Boston, 0.9 cents; New York, 1.00 cent; Richmond, 1.25 cents; and San Francisco, 2.0 cents. The total number of items handled at the different banks and the amounts involved, during the period July 15–December 31, 1916, were as follows:[1]

	Items Handled	Total Amounts Handled
Boston	4,847,745[2]	$1,002,784,224
New York	4,908,674	3,025,978,000
Philadelphia	3,506,676	1,837,524,767
Cleveland	1,996,122	957,386,775
Richmond	2,020,065	891,077,800
Atlanta	1,602,095	494,368,004
Chicago	2,586,871[2]	1,599,624,220
St. Louis	2,234,060	1,008,756,505
Minneapolis	1,529,407	329,826,404
Kansas City	1,562,860	845,154,257
Dallas	1,495,626	378,491,987
San Francisco	594,475	167,287,612
Total	28,884,676	$12,538,260,555

[1] 1916 Report of Federal Reserve Board, p. 11.
[2] Does not include Government checks.

XII. Foreign Operations

The progress made in this field, in the various directions contemplated in the Federal Reserve Act, may be discussed under the following heads: member bank branches, reserve bank foreign operations, acceptances and dollar exchange, and gold movements.

Member bank branches

At this writing[1] several member banks have opened foreign branches. The National City Bank of New York City has, with the consent of the Reserve Board, established branches in the following places: Buenos Aires, Argentina; Habana, Cuba; Rio de Janeiro, Brazil; Valparaiso, Chile; Genoa, Italy; Petrogard, Russia. Moreover, subbranches have been established in connection with each of these main branches. The Commercial National Bank of Washington, D. C., has established branches at Panama City, Panama, and at Cristobal in the Canal Zone.

Reserve bank *foreign* operations

The foreign operations of the reserve banks, provided for in the act, have to do with the establishment of foreign agencies, *etc.*, and the dealing in foreign bills and in bullion. Very little in this connection has, however, yet been accomplished. In the words of the Reserve Board:

> While much has been done to facilitate the financing of foreign trade through the development of the acceptance market and by the establishment abroad of American banks and branches, the provisions of the act which permit the establishment of foreign agencies or branches of federal reserve banks have not as yet been availed of, nor have the banks as yet undertaken the direct purchase of foreign commercial bills, or the performance of other functions relating to foreign transactions authorized in the law. This delay has been due partly to the disturbed condition of business in markets abroad and partly to the belief that a sound and thorough application of the law in its domestic aspects should precede the undertaking of foreign operations allowed by the act. The Board has, however, had under consideration for some time the advisability of authorizing federal reserve banks to appoint correspondents, and to establish agencies in foreign countries, and on December 20 formally approved the

[1] March, 1917.

application of the Federal Reserve Bank of New York for authority to establish an agency with the Bank of England. . . . If the authority granted by the Board in this case shall result in the establishment of the agency, it will be so arranged that the other federal reserve banks will be enabled to participate in the agency relationship on the same terms and conditions.

It is probable that other connections of this character will be authorized from time to time as occasion requires, thus enabling the federal reserve banks, while assisting the development of our international trade, to provide for themselves, by holding a substantial amount of foreign paper, an effective means of absorbing any shock due to sudden withdrawals of gold for export. There seems to be no reason why the federal reserve banks should not be placed upon the same footing in this respect as the great reserve banks of Europe and given wide powers in the matter of international exchange, with the Federal Reserve Board acting as the central controlling force in the coordination and direction of operations.

On February 28, 1917, the Board announced that an agency similar to that established by the New York Reserve Bank at the Bank of England had also been authorized for the same reserve bank at the Bank of France. In like manner the San Francisco Reserve Bank has established an agency with the Philippine National Bank.

XIII. Acceptances and Dollar Exchange

Development of the bankers' acceptance

The development of the bankers' acceptance in connection with our foreign trade has already been discussed. Concerning this development the Reserve Board says in its 1916 report:[1]

The Board notes with great satisfaction the progress made during the past year in developing a market for American bankers' acceptances, which now enjoy the standing to which they are entitled in most of the world's financial centers. American banking facilities are now being used in Europe, South and Central America, and Asia. The number of banks, trust companies, and private bankers engaging in this business has increased materially and the advantages of American bankers'

[1] Page 4.

acceptances, payable in dollars, are now better understood both at home and abroad. A very satisfactory beginning has thus been made, but it should be borne in mind that it is only a beginning, though a promising one, and that the scope of this new function of American banking must be greatly extended before it will be commensurate with the country's financial resources.

Dollar exchange

Long bills

The amendment to the Reserve Act adopted September 7, 1916, authorized the member banks, with certain restrictions and under regulations prescribed by the Reserve Board, to accept 90-day drafts and bills for the purpose of supplying dollar exchange where the usages of trade required it. The Board authorized the drawing of such bills in Porto Rico, Santo Domingo, Costa Rica, Peru, Chile, Brazil, Venezuela, Argentina, and Bolivia.[1] Some applications relating to other countries were denied. The Board's position is that the purpose of the act is to provide this type of dollar exchange in countries where the check is not the current means of remittance in payment of foreign debts, but where the three months' bankers' draft is used for the purpose. The custom of selling such drafts originated in countries where the mail collections were irregular, where the foreign exchange market was a limited one, and hence where it would be difficult for the drawing banker to be certain that he could find a cover for the checks drawn by him in time to forward such cover in the same mail with the check. If he drew a three months' draft ample opportunity would be afforded to cover. The Board held that such conditions did not exist in England, France, or Germany, and hence refused to grant permission for the acceptance of long bills, of the kind referred to, drawn in those countries.[1] Concerning the possibilities of this kind of paper the Board stated in the December, 1916, *Federal Reserve Bulletin:*[2]

> The time has so far been too short to ascertain what the development of the acceptance business thus indicated will be.

[1] *Federal Reserve Bulletin*, December, 1916, p. 665.
[2] Page 666

Purchases of paper growing out of such operations at federal reserve banks have naturally been small in the aggregate, but some of the banks have now considerable individual holdings.

XIV. Gold Movements

Position of the U. S. transformed

Since the establishment of the Federal Reserve System the position of the United States as a member of the world economic family has been completely reversed. At the outbreak of the European war we were a debtor nation. It was estimated that Europeans held about $6,000,000,000 worth of American securities and that there was in addition a floating debt of about half a billion. Before the end of 1916 we had become a creditor nation.

Liquidation of American securities

Rumors of war before the outbreak of hostilities caused a considerable liquidation of American securities by foreign investors. The war itself naturally gave tremendous impetus to further liquidation. The closing of the London Stock Exchange threw the whole burden on the New York market, and from July 27 to the closing of the New York Exchange on the 30th, over 3,000,000 shares of stock were sold, mostly on European account.

This threw a tremendous strain on the foreign exchange market. In the week July 20-27 demand sterling advanced 130 points to 4.8825, and by July 27 the market was merely nominal, rates depending upon personal negotiation. Exchange thereupon soared in an altogether unprecedented manner, cables advancing on August 1 to $7 and demand sterling to $6. Difficulties developed in connection with cables in code, with shipping, and with war-risk insurance, all of which further confounded the exchange situation. It was virtually impossible for a time to get remittances to stranded Americans on the other side, until finally the government took the unusual step of sending over gold on an American warship.

Remedial expedients

Little by little the chaotic conditions were overcome. To meet the obligations of the City of New York maturing on the other side 127 New York banks subscribed to a

special $100,000,000 loan. The Bank of England authorized the Canadian Minister of Finance to receive deposits in gold in trust on its account. Finally through the leadership of the Federal Reserve Board, a representative committee of bankers organized a $100,000,000 gold pool. The necessary funds were subscribed by banks all over the country, and gold was shipped to Canada to provide credits in sterling to cover maturing obligations in Europe and to stabilize the American rates.

Gold exports

The rapid rise in exchange naturally stimulated gold exports. Large sums were engaged for this purpose by the big dealers. The sum of $10,700,000 shipped on the steamship *Kronprinzessin Cecilie* was said to be the largest amount ever sent on one vessel. The feverish exportation of gold was stimulated by the rapid rise in the English bank rate, which finally, on August 1 went to the unprecedented level of 10%. From the first of the year to the end of July $122,700,000 in gold, not including shipments to Canada, had been exported. Of this amount $41,850,000 had gone out in one week. This loss of gold aroused such grave fears among the banking fraternity that a moral embargo was placed on further shipments. Engagements of gold for export subsequently made were either for the relief of stranded Americans or as a part of a general plan. The gold sent on the *Kronprinzessin Cecilie* was returned to New York when the ship, unable to reach Germany, turned about and took refuge at Bar Harbor.

Recovery during 1915

During 1915 recovery was rapid. The export of food supplies, raw materials, manufactured articles, and munitions of war increased so rapidly that the supply of foreign exchange, especially sterling, became relatively redundant. The excess of exports over imports during the year was $1,776,074,152.[1] The financing of a large part of all the Entente Allies' purchases having been arranged through England, the burden of almost the whole export

[1] *Monthly Summary of Foreign Commerce of the United States*, December, 1916, p. 4.

movement devolved upon sterling. At the same time that supply was expanding, demand tended to fall off, due to a marked cessation in the selling of American stocks by Europe, to the complete elimination of the normal tourists' demands, to a decline in imports, and to the partial substitution of the dollar for the pound sterling in international exchange transactions. The price of sterling exchange declined rapidly in the New York market, going as low as $4.50 for demand sterling in September.

Improvement in 1916

During 1916 the position of the United States continued to improve. Exports continued at unheard-of levels, yielding a "favorable balance" by the close of the year of $3,089,769,254. Instead of liquidating debts on the other side our bankers were making loans. According to the report of the Federal Reserve Board it was estimated that from the beginning of the war down to 1917 $2,250,000,000 in American securities were repurchased from Europe, while during the same period about $2,000,000,000 of securities issued by foreign governments and corporations were absorbed by American financial institutions and investors.[1] Private bank advances, the amounts of which are not published, were also made in large volume.

Gold imports

As might be expected, gold movements during 1915 and 1916 were toward rather than away from the United States. The practical suspension of gold payments and the embargo put on gold exports by the governments in the belligerent countries interfered with what would otherwise have been the normal flow. Gold was arbitrarily released by the Bank of England and by the Bank of France when it suited their own purposes. Nevertheless, while during 1913 the United States had lost through net exports $28,093,778 in gold, and during 1914 the sum of $165,228,415, the net imports during 1915 equaled $420,528,672 and during 1916 $530,197,307.[2] Total figures of imports

[1] 1916 Report, pages 1 and 2.

[2] *Monthly Summary of Foreign Commerce of United States*, December, 1916, p. 4.

and exports of gold as given in the *Federal Reserve Bulletin* (March, 1917, p. 153) are as follows:

	Imports	Exports	Excess of imports over exports
Aug. 1 to Dec. 31, 1914..	$23,253,000	$104,972,000	$81,719,000[1]
Jan. 1 to Dec. 31, 1915..	451,955,000	31,426,000	420,529,000
Jan. 1 to Dec. 31, 1916..	685,745,000	155,793,000	529,952,000
Jan. 1 to Feb. 16, 1917..	112,467,000	30,057,000	82,410,000
Total	$1,273,420,000	$323,398,000	$951,172,000

Prevention of inflation

While the leadership of the Reserve Board was of importance at the outbreak of the European war, the rapid improvement of the international credit position of the United States rendered unnecessary any concern about our gold reserves. A problem that was much more serious was the prevention of the wild inflation that the huge gold imports made possible. The Board has consistently endeavored to get the new gold into the hands of the reserve banks where its use can be best supervised and controlled.[2]

XV. Examinations and Publicity

The extensive examinations provided for by the Federal Reserve Act were alluded to before.[3] In arranging for examinations, as in other matters, the Reserve Board largely followed the recommendations of the expert Preliminary Committee on Organization that had submitted an admirable report on the organization of the reserve banks. This committee was composed of H. Parker Willis, chairman, and of the following: Edmund D. Fisher, Andrew A. Benton, O. Howard Wolfe, Joseph A. Broderick, Ralph Dawson, and Stephen H. Farnham. It had been provided

[1] Excess of exports.

[2] Since the entrance of the United States into the war, however, in the interest of our own needs, it has become necessary to prohibit gold exports except under the supervision of the Reserve Board. This has strengthened the Board's control.

[3] See *ante*, p. 263.

for by the Reserve Bank Organization Committee. Its report was confidential but it was in part reproduced in the first report of the Federal Reserve Board.

Division of audit and examination

Examinations under the supervision of the Reserve Board are handled by the Division of Audit and Examination. The functions of this division were broadly outlined by the Board itself. First provision was made for the examination and audit of the reserve banks themselves. Then followed provisions for the examination of member banks.

Reserve banks

The provisions relating to the reserve banks cover not only the banks but also the federal reserve agents. While the law provides for examination of reserve banks at least once a year the Board decided upon two examinations per year "covering thorough examination of rediscounts, collateral loans, investments, and open market transactions, particular attention being paid to compliance with the provisions of the Federal Reserve Act and regulations promulgated by the Federal Reserve Board."[1] Eligibility of paper accepted for rediscount must be tested and inquiries concerning the condition of member banks offering the paper must be instituted. The examiners must report to the Board concerning the competency of management, adequacy of record, *etc.*, and the attention given by directors to the affairs of the bank. They must also call attention to "any unsafe or unsound condition or any vicious tendency that might appear in any department of the bank." The Reserve Board asks each director of a federal reserve bank to read and initial the semi-annual report of examination of his bank. The chairmen of the several boards of directors then advise the Reserve Board when "the report has been read by their directors and had their full consideration." For this purpose copies of the report of each examination are sent to the reserve banks.

Federal reserve agents

The records and accounts of the federal reserve agents are required to be examined quarterly and a complete

[1] 1914 Report, p. 50.

report of each examination must be rendered to the Board. The examination covers "a verification of the money, federal reserve notes, and collateral in the hands of the federal reserve agent."[1]

Member banks

With respect to the member banks two regular examinations each year are required to be made by examiners under the Comptroller of the Currency, excepting in so far as the Reserve Board accepts the examination of state institutions by state authorities. The law permits the Reserve Board as well as the several reserve banks to make examinations of member banks. But as the Board itself recognized:

> If advantage is taken of the right to examine member banks by all of the authorities upon whom the power is conferred it will place member banks under continuous examination at a tremendous expense, cause duplication and confusion, and defeat the purpose which the law is intended to serve.

Hence the Board takes the position that the regular examinations shall be those made by the national bank examiners. Examinations by the Board itself, or by reserve banks with the Board's approval, shall be special examinations made only when deemed necessary by the Board. To meet the legitimate requirements of the reserve banks copies of the reports of the regular examinations of member banks and such additional special information as is desired is submitted by the national bank examiners to the reserve banks.

With respect to the state institutions that are members of the system the Board takes the position that "the intent of the law seems to be to accept the examination made by state authorities wherever it can be done without discrimination." Hence there is imposed upon the Division of Audit and Examination the duty of studying carefully the adequacy of state systems of examination to ascertain whether such systems attain a satisfactory standard. State

[1] *Loc. cit.*

authorities are requested to give information concerning each state institution that is a member of the reserve system. When special examinations of state member banks are necessary they are made wherever possible in connection with examinations by state authorities.

Credit bureaus

The development of a system of credit bureaus is also put under the jurisdiction of the Division of Audit and Examination. Each federal reserve bank has its own credit bureau, but results of general interest are to be brought together so far as possible, in the central bureau. The credit bureaus collect and record data concerning member banks and the standing of all who discount paper at or borrow from member banks.

Reports and statements

Reports of various kinds are made by the reserve banks to the Reserve Board. Reports concerning rediscounts and loans are made daily. Other periodic reports deal with different aspects of the bank's business. The work of collating the reports and of preparing the statistical tables is intrusted to a Division of Reports and Statistics which necessarily coöperates with the Division of Audit and Examination.

Cost of examination

Before the passage of the Reserve Act the national bank examiners were paid on a fee basis. Section 21 of the act put national bank examiners on a salary, and a charge was required "to be assessed by the Comptroller of the Currency upon the banks examined in proportion to assets or resources held by the banks upon the dates of examination." In the March, 1916, *Federal Reserve Bulletin* (p. 122) a table of costs of examination under the old and under the new system is reproduced. For institutions in central reserve and in reserve cities, and with resources under $10,000,000, the cost is lower than before, but for the larger institutions the cost is greater than under the old system. It is uniformly higher for country banks. For institutions with resources of $50,000,000 or more the cost, in central reserve and in reserve cities was $710 and for the country banks was only $75, but under the new

system the cost is $1,024.50. Under the old system examination costs ranged from $50.50 to $710 in central reserve cities and from $20 to $75 for country banks. Under the new system the ranges of cost are from $26 to $1,024.50 for all institutions. In a statement in the *Federal Reserve Bulletin* (May, 1916, p. 213) the Reserve Board explains that gross inequalities existed under the old system. While in reserve and central reserve cities 38% of the banks are now paying more than before, 62% are paying less. In the whole system only 32 banks had, at the time of the statement, resources in excess of $50,000,000, and 31 of these were in reserve and in central reserve cities. Moreover, under the old system the examiners paid all their expenses out of their fees, and there was, in consequence, a temptation to speed up examinations. Reports of the examinations also were made only to the Comptroller, and bank directors had special examinations made of their institutions for their own benefit. As the examiners now receive stated salaries, they make more leisurely and more thorough examinations, and as copies of the reports are sent to the boards of directors concerned the Reserve Board believes that special examinations will no longer be required.

Publicity

The "reports of condition" of all the national banks and of state institutions in the Federal Reserve System are regularly published. Five of such reports each year are made to the Comptroller. The Comptroller's published statements, however, do not deal with the individual banks, but represent abstracts covering the system as a whole. The individual reports are locally published.

The statements of the reserve banks are published weekly by the Reserve Board. The items are given in detail for the individual reserve banks and the totals for the system as a whole are also clearly set forth. The Board prepares an explanatory statement showing the changes from week to week in the principal items of resources and liabilities. Copies of the statement are sent to newspapers all over the country and the widest publicity is thus obtained for

them. On special occasions the Board also prepares other statements for the press.

Federal reserve bulletin

In May, 1915, the Reserve Board began the publication of the *Federal Reserve Bulletin*. The *Bulletin* records monthly all the matters of interest bearing on the Reserve System. It recounts the activities of the various agencies connected with the system, gives the decisions of the Board and the important opinions of counsel, and supplies a satisfactory assortment of statistical material. The *Federal Reserve Bulletin* is indispensable to the student of our new banking system.

Conclusion

While this summary description of the practical operation of the Reserve System is of necessity incomplete, it warrants the conclusion that the system justifies most of the hopes placed in it. The most obvious need in the further development of the system is the bringing in of the state institutions. Their aloofness grows out of a narrow consideration of immediate self-interest without due regard for the importance of thoroughgoing reserve organization and control. If the state banks do not voluntarily come into the system compulsion must in time be brought to bear on them.[1] Other needs of the system can undoubtedly be cared for without serious difficulty. The acceptance by Congress with little criticism of the amendments advocated by the Reserve Board shows that the necessary changes in the law itself can, under intelligent and disinterested leadership, be readily secured. Changes in practice, however, and the development of sympathetic understanding depend upon the slower process of education.

SELECTED REFERENCES

C. A. Phillips, *Readings in Money and Banking* (1916), Chapters XXXI and XXXII.

[1] Here, too, it becomes necessary to state that, since the entrance of the United States into the war, the movement of state banks into the system has accelerated.

H. PARKER WILLIS, *American Banking* (1916), Chapter XIX; "The First Year of the New Banking System" (in *Political Science Quarterly*, Volume 30, page 591); "What the Federal Reserve System Has Done" (*American Economic Review*, June, 1917, page 269).

Federal Reserve Bulletin (published monthly by the Board, giving full account of important developments in system).

APPENDIX A

FEDERAL RESERVE ACT

Complete Official text of the Federal Reserve Act Approved December 23, 1913, with Amendments to June 21, 1917, inserted.[1]

(PUBLIC—No. 43—63D CONGRESS)
(H. R. 7837)

An Act to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the short title of this Act shall be the "Federal Reserve Act."

Wherever the word "bank" is used in this Act, the word shall be held to include State bank, banking association, and trust company, except where national banks or Federal reserve banks are specifically referred to.

The terms "national bank" and "national banking association" used in this Act shall be held to be synonymous and interchangeable. The term "member bank" shall be held to mean any national bank, State bank, or bank or trust company which has become a member of one of the reserve banks created by this Act. The term "board" shall be held to mean Federal Reserve Board; the term "district" shall be held to mean Federal reserve district; the term "reserve bank" shall be held to mean Federal reserve bank.

FEDERAL RESERVE DISTRICTS

SEC. 2. As soon as practicable, the Secretary of the Treasury, the Secretary of Agriculture, and the Comptroller of the Currency, acting as "The Reserve Bank Organization Committee," shall designate not less than eight nor more than twelve cities

1 Obtained through courtesy of National Bank of Commerce, New York.

to be known as Federal reserve cities, and shall divide the continental United States, excluding Alaska, into districts, each district to contain only one of such Federal reserve cities. The determination of said organization committee shall not be subject to review except by the Federal Reserve Board when organized: Provided, That the districts shall be apportioned with due regard to the convenience and customary course of business and shall not necessarily be coterminous with any State or States. The districts thus created may be readjusted and new districts may from time to time be created by the Federal Reserve Board, not to exceed twelve in all. Such districts shall be known as Federal reserve districts and may be designated by number. A majority of the organization committee shall constitute a quorum with authority to act.

Said organization committee shall be authorized to employ counsel and expert aid, to take testimony, to send for persons and papers, to administer oaths, and to make such investigation as may be deemed necessary by the said committee in determining the reserve districts and in designating the cities within such districts where such Federal reserve banks shall be severally located. The said committee shall supervise the organization in each of the cities designated of a Federal reserve bank, which shall include in its title the name of the city in which it is situated, as "Federal Reserve Bank of Chicago."

Under regulations to be prescribed by the organization committee, every national banking association in the United States is hereby required, and every eligible bank in the United States and every trust company within the District of Columbia, is hereby authorized to signify in writing, within sixty days after the passage of this Act, its acceptance of the terms and provisions hereof. When the organization committee shall have designated the cities in which Federal reserve banks are to be organized, and fixed the geographical limits of the Federal reserve districts, every national banking association within that district shall be required within thirty days after notice from the organization committee, to subscribe to the capital stock of such Federal reserve bank in a sum equal to six per centum of the paid-up capital stock and surplus of such bank, one-sixth of the subscription to be payable on call of the organization committee or of the Federal Reserve Board, one-sixth within three months and one-sixth within six months thereafter, and the remainder of the subscription, or any part thereof, shall be subject to call when deemed necessary by the Federal Reserve Board, said payments to be in gold or gold certificates.

The shareholders of every Federal reserve bank shall be held individually responsible, equally and ratably, and not one for another, for all contracts, debts, and engagements of such bank to the extent of the amount of their subscriptions to such stock at the par value thereof in addition to the amount subscribed, whether such subscriptions have been paid up in whole or in part, under the provisions of this Act.

Any national bank failing to signify its acceptance of the terms of this Act within the sixty days aforesaid, shall cease to act as a reserve agent, upon thirty days' notice, to be given within the discretion of the said organization committee or of the Federal Reserve Board.

Should any national banking association in the United States now organized fail within one year after the passage of this Act to become a member bank or fail to comply with any of the provisions of this Act applicable thereto, all of the rights, privileges, and franchises of such association granted to it under the national-bank Act, or under the provisions of this Act, shall be thereby forfeited. Any noncompliance with or violation of this Act shall, however, be determined and adjudged by any court of the United States of competent jurisdiction in a suit brought for that purpose in the district or territory in which such bank is located, under direction of the Federal Reserve Board, by the Comptroller of the Currency in his own name before the association shall be declared dissolved. In cases of such noncompliance or violation, other than the failure to become a member bank under the provisions of this Act, every director who participated in or assented to the same shall be held liable in his personal or individual capacity for all damages which said bank, its shareholders, or any other person shall have sustained in consequence of such violation.

Such dissolution shall not take away or impair any remedy against such corporation, its stockholders or officers, for any liability or penalty which shall have been previously incurred.

Should the subscriptions by banks to the stock of said Federal reserve banks or any one or more of them be, in the judgment of the organization committee, insufficient to provide the amount of capital required therefor, then and in that event the said organization committee may, under conditions and regulations to be prescribed by it, offer to public subscription at par such an amount of stock in said Federal reserve banks, or any one or more of them, as said committee shall determine, subject to the same conditions as to payment and stock liability as provided for member banks.

No individual, copartnership, or corporation other than a member bank of its district shall be permitted to subscribe for or to hold at any time more than $25,000 par value of stock in any Federal reserve bank. Such stock shall be known as public stock and may be transferred on the books of the Federal reserve bank by the chairman of the board of directors of such bank.

Should the total subscriptions by banks and the public to the stock of said Federal reserve banks, or any one or more of them, be, in the judgment of the organization committee, insufficient to provide the amount of capital required therefor, then and in that event the said organization committee shall allot to the United States such an amount of said stock as said committee shall determine. Said United States stock shall be paid for at par out of any money in the Treasury not otherwise appropriated, and shall be held by the Secretary of the Treasury and disposed of for the benefit of the United States in such manner, at such times, and at such price, not less than par, as the Secretary of the Treasury shall determine.

Stock not held by member banks shall not be entitled to voting power.

The Federal Reserve Board is hereby empowered to adopt and promulgate rules and regulations governing the transfers of said stock.

No Federal reserve bank shall commence business with a subscribed capital less than $4,000,000. The organization of reserve districts and Federal reserve cities shall not be construed as changing the present status of reserve cities and central reserve cities, except in so far as this Act changes the amount of reserves that may be carried with approved reserve agents located therein. The organization committee shall have power to appoint such assistants and incur such expenses in carrying out the provisions of this Act as it shall deem necessary, and such expenses shall be payable by the Treasurer of the United States upon voucher approved by the Secretary of the Treasury, and the sum of $100,000, or so much thereof as may be necessary, is hereby appropriated, out of any moneys in the Treasury not otherwise appropriated, for the payment of such expenses.

Branch Offices

"*Sec. 3.*[1] *The Federal Reserve Board may permit or require any Federal reserve bank to establish branch banks within the Federal reserve district in which it is located or within the district of any Federal reserve bank which may have been suspended.*

[1] As amended June 21, 1917.

Such branches, subject to such rules and regulations as the Federal Reserve Board may prescribe, shall be operated under the supervision of a board of directors to consist of not more than seven nor less than three directors, of whom a majority of one shall be appointed by the Federal reserve bank of the district, and the remaining directors by the Federal Reserve Board. Directors of branch banks shall hold office during the pleasure of the Federal Reserve Board."

Federal Reserve Banks

Sec. 4. When the organization committee shall have established Federal reserve districts as provided in section two of this Act, a certificate shall be filed with the Comptroller of the Currency showing the geographical limits of such districts and the Federal reserve city designated in each of such districts. The Comptroller of the Currency shall thereupon cause to be forwarded to each national bank located in each district, and to such other banks declared to be eligible by the organization committee which may apply therefor, an application blank in form to be approved by the organization committee, which blank shall contain a resolution to be adopted by the board of directors of each bank executing such application, authorizing a subscription to the capital stock of the Federal reserve bank organizing in that district in accordance with the provisions of this Act.

When the minimum amount of capital stock prescribed by this Act for the organization of any Federal reserve bank shall have been subscribed and allotted, the organization committee shall designate any five banks of those whose applications have been received, to execute a certificate of organization, and thereupon the banks so designated shall, under their seals, make an organization certificate which shall specifically state the name of such Federal reserve bank, the territorial extent of the district over which the operations of such Federal reserve bank are to be carried on, the city and State in which said bank is to be located, the amount of capital stock and the number of shares into which the same is divided, the name and place of doing business of each bank executing such certificate, and of all banks which have subscribed to the capital stock of such Federal reserve bank and the number of shares subscribed by each, and the fact that the certificate is made to enable those banks executing same, and all banks which have subscribed or may thereafter subscribe to the capital stock of such Federal reserve bank, to avail themselves of the advantages of this Act.

The said organization certificate shall be acknowledged before a judge of some court of record or notary public; and shall be, together with the acknowledgment thereof, authenticated by the seal of such court, or notary, transmitted to the Comptroller of the Currency, who shall file, record, and carefully preserve the same in his office.

Upon the filing of such certificate with the Comptroller of the Currency as aforesaid, the said Federal reserve bank shall become a body corporate and as such, and in the name designated in such organization certificate, shall have power—

First. To adopt and use a corporate seal.

Second. To have succession for a period of twenty years from its organization unless it is sooner dissolved by an Act of Congress, or unless its franchise becomes forfeited by some violation of law.

Third. To make contracts.

Fourth. To sue and be sued, complain and defend, in any court of law or equity.

Fifth. To appoint, by its board of directors, such officers and employees as are not otherwise provided for in this Act, to define their duties, require bonds of them and fix the penalty thereof, and to dismiss at pleasure such officers or employees.

Sixth. To prescribe, by its board of directors, by-laws not inconsistent with law, regulating the manner in which its general business may be conducted, and the privileges granted to it by law may be exercised and enjoyed.

Seventh. To exercise by its board of directors, or duly authorized officers or agents, all powers specifically granted by the provisions of this Act and such incidental powers as shall be necessary to carry on the business of banking within the limitations prescribed by this Act.

Eighth. Upon deposit with the Treasurer of the United States of any bonds of the United States in the manner provided by existing law relating to national banks, to receive from the Comptroller of the Currency circulating notes in blank, registered and countersigned as provided by law, equal in amount to the par value of the bonds so deposited, such notes to be issued under the same conditions and provisions of law as relate to the issue of circulating notes of national banks secured by bonds of the United States bearing the circulating privilege, except that the issue of such notes shall not be limited to the capital stock of such Federal reserve bank.

But no Federal reserve bank shall transact any business except such as is incidental and necessarily preliminary to its organiza-

tion until it has been authorized by the Comptroller of the Currency to commence business under the provisions of this Act.

Every Federal reserve bank shall be conducted under the supervision and control of a board of directors.

The board of directors shall perform the duties usually appertaining to the office of directors of banking associations and all such duties as are prescribed by law.

Said board shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks and shall, subject to the provisions of law and the orders of the Federal Reserve Board, extend to each member bank such discounts, advancements, and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks.

Such board of directors shall be selected as hereinafter specified and shall consist of nine members, holding office for three years, and divided into three classes, designated as classes A, B, and C.

[1] Class A shall consist of three members, who shall be chosen by and be representative of the stock-holding banks.

[Public No. 75 64th Congress.]
[S. 4432.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section eight of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, be, and the same is hereby, amended by striking out the period at the end of the second clause of said section, inserting in lieu thereof a colon, and adding to said clause the following:

"*And provided further*, That nothing in this Act shall prohibit any officer, director, or employee of any member bank or class A director of a Fedreal Reserve bank, who shall first procure the consent of the Federal Reserve Board, which board is hereby authorized, at its discretion, to grant, withhold, or revoke such consent, from being an officer, director, or employee of not more than two other banks, banking associations, or trust companies, whether organized under the laws of the United States or any State, if such other bank, banking association, or trust company is not in substantial competition with such member bank.

"The consent of the Federal Reserve Board may be procured before the person applying therefor has been elected as a class A director of a Federal reserve bank or as a director of any member bank."

Approved, May 15, 1916.

[1] An Act to amend section eight of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen.

Class B shall consist of three members, who at the time of their election shall be actively engaged in their district in commerce, agriculture, or some other industrial pursuit.

Class C shall consist of three members who shall be designated by the Federal Reserve Board. When the necessary subscriptions to the capital stock have been obtained for the organization of any Federal reserve bank, the Federal Reserve Board shall appoint the class C directors and shall designate one of such directors as chairman of the board to be selected. Pending the designation of such chairman, the organization committee shall exercise the powers and duties appertaining to the office of chairman in the organization of such Federal reserve bank.

No Senator or Representative in Congress shall be a member of the Federal Reserve Board or an officer or a director of a Federal reserve bank.

No director of class B shall be an officer, director, or employee of any bank.

No director of class C shall be an officer, director, employee, or stockholder of any bank.

Directors of class A and class B shall be chosen in the following manner:

The chairman of the board of directors of the Federal reserve bank of the district in which the bank is situated or, pending the appointment of such chairman, the organization committee shall classify the member banks of the district into three general groups or divisions. Each group shall contain as nearly as may be one-third of the aggregate number of the member banks of the district and shall consist, as nearly as may be, of banks of similar capitalization. The groups shall be designated by number by the chairman.

At a regularly called meeting of the board of directors of each member bank in the district it shall elect by ballot a district reserve elector and shall certify his name to the chairman of the board of directors of the Federal reserve bank of the district. The chairman shall make lists of the district reserve electors thus named by banks in each of the aforesaid three groups and shall transmit one list to each elector in each group.

Each member bank shall be permitted to nominate to the chairman one candidate for director of class A and one candidate for director of class B. The candidates so nominated shall be listed by the chairman, indicating by whom nominated, and a copy of said list shall, within fifteen days after its completion, be furnished by the chairman of each elector.

Every elector shall, within fifteen days after the receipt of

the said list, certify to the chairman his first, second, and other choices of a director of class A and class B, respectively, upon a preferential ballot, on a form furnished by the chairman of the board of directors of the Federal reserve bank of the district. Each elector shall make a cross opposite the name of the first, second, and other choices for a director of class A and for a director of class B, but shall not vote more than one choice for any one candidate.

Any candidate having a majority of all votes cast in the column of first choice shall be declared elected. If no candidate have a majority of all the votes in the first column, then there shall be added together the votes cast by the electors for such candidates in the second column and the votes cast for the several candidates in the first column. If any candidate then have a majority of electors voting, by adding together the first and second choices, he shall be declared elected. If no candidate have a majority of electors voting when the first and second choices shall have been added, then the votes cast in the third column for other choices shall be added together in like manner, and the candidate then having the highest number of votes shall be declared elected. An immediate report of election shall be declared.

[1] "*Class C directors shall be appointed by the Federal Reserve Board. They shall have been for at least two years residents of the district for which they are appointed, one of whom shall be designated by said board as chairman of the board of directors of the Federal reserve bank and as 'Federal reserve agent.' He shall be a person of tested banking experience, and in addition to his duties as chairman of the board of directors of the Federal reserve bank he shall be required to maintain, under regulations to be established by the Federal Reserve Board, a local office of said board on the premises of the Federal reserve bank. He shall make regular reports to the Federal Reserve Board and shall act as its official representative for the performance of the functions conferred upon it by this Act. He shall receive an annual compensation to be fixed by the Federal Reserve Board and paid monthly by the Federal reserve bank to which he is designated. One of the directors of class C shall be appointed by the Federal Reserve Board as deputy chairman to exercise the powers of the chairman of the board when necessary. In case of the absence of the chairman and deputy chairman, the third-class C director shall preside at meetings of the board.*

"*Subject to the approval of the Federal Reserve Board, the*

[1] As amended June 21, 1917.

Federal reserve agent shall appoint one or more assistants. Such assistants, who shall be persons of tested banking experience, shall assist the Federal reserve agent in the performance of his duties and shall also have power to act in his name and stead during his absence or disability. The Federal Reserve Board shall require such bonds of the assistant Federal reserve agents as it may deem necessary for the protection of the United States. Assistants to the Federal reserve agent shall receive an annual compensation, to be fixed and paid in the same manner as that of the Federal reserve agent."

Directors of Federal reserve banks shall receive, in addition to any compensation otherwise provided, a reasonable allowance for necessary expenses in attending meetings of their respective boards, which amount shall be paid by the respective Federal reserve banks. Any compensation that may be provided by boards of directors of Federal reserve banks for directors, officers, or employees shall be subject to the approval of the Federal Reserve Board.

The Reserve Bank Organization Committee may, in organizing Federal reserve banks, call such meetings of bank directors in the several districts as may be necessary to carry out the purposes of this Act, and may exercise the functions herein conferred upon the chairman of the board of directors of each Federal reserve bank pending the complete organization of such bank.

At the first meeting of the full board of directors of each Federal reserve bank, it shall be the duty of the directors of classes A, B, and C, respectively, to designate one of the members of each class whose term of office shall expire in one year from the first of January nearest to date of such meeting, one whose term of office shall expire at the end of two years from said date, and one whose term of office shall expire at the end of three years from said date. Thereafter every director of a Federal reserve bank chosen as hereinbefore provided shall hold office for a term of three years. Vacancies that may occur in the several classes of directors of Federal reserve banks may be filled in the manner provided for the original selection of such directors, such appointees to hold office for the unexpired terms of their predecessors.

Stock Issues; Increase and Decrease of Capital

Sec. 5. The capital stock of each Federal reserve bank shall be divided into shares of $100 each. The outstanding capital stock shall be increased from time to time as member banks

increase their capital stock and surplus or as additional banks become members, and may be decreased as member banks reduce their capital stock or surplus or cease to be members. Shares of the capital stock of Federal reserve banks owned by member banks shall not be transferred or hypothecated. When a member bank increases its capital stock or surplus, it shall thereupon subscribe for an additional amount of capital stock of the Federal reserve bank of its district equal to six per centum of the said increase, one-half of said subscription to be paid in the manner hereinbefore provided for original subscription, and one-half subject to call of the Federal Reserve Board. A bank applying for stock in a Federal reserve bank at any time after the organization thereof must subscribe for an amount of the capital stock of the Federal reserve bank equal to six per centum of the paid-up capital stock and surplus of said applicant bank, paying therefor its par value plus one-half of one per centum a month from the period of the last dividend. When the capital stock of any Federal reserve bank shall have been increased either on account of the increase of capital stock of member banks or on account of the increase in the number of member banks, the board of directors shall cause to be executed a certificate to the Comptroller of the Currency showing the increase in capital stock, the amount paid in, and by whom paid. When a member bank reduces its capital stock it shall surrender a proportionate amount of its holdings in the capital of said Federal reserve bank, and when a member bank voluntarily liquidates it shall surrender all of its holdings of the capital stock of said Federal reserve bank, and be released from its stock subscription not previously called. In either case the shares surrendered shall be canceled and the member bank shall receive in payment therefor, under regulations to be prescribed by the Federal Reserve Board, a sum equal to its cash-paid subscriptions on the shares surrendered and one-half of one per centum a month from the period of the last dividend, not to exceed the book value thereof, less any liability of such member bank to the Federal reserve bank.

Sec. 6. If any member bank shall be declared insolvent and a receiver appointed therefor, the stock held by it in said Federal reserve bank shall be canceled, without impairment of its liability, and all cash-paid subscriptions on said stock, with one-half of one per centum per month from the period of last dividend, not to exceed the book value thereof, shall be first applied to all debts of the insolvent member bank to the Federal reserve bank, and the balance, if any, shall be paid to the receiver of the insolvent

bank. Whenever the capital stock of a Federal reserve bank is reduced, either on account of a reduction in capital stock of any member bank or of the liquidation or insolvency of such bank, the board of directors shall cause to be executed a certificate to the Comptroller of the Currency showing such reduction of capital stock and the amount repaid to such bank.

Division of Earnings

Sec. 7. After all necessary expenses of a Federal reserve bank have been paid or provided for, the stockholders shall be entitled to receive an annual dividend of six per centum on the paid-in capital stock, which dividend shall be cumulative. After the aforesaid dividend claims have been fully met, all the net earnings shall be paid to the United States as a franchise tax, except that one-half of such net earnings shall be paid into a surplus fund until it shall amount to forty per centum of the paid-in capital stock of such bank.

The net earnings derived by the United States from Federal reserve banks shall, in the discretion of the Secretary, be used to supplement the gold reserve held against outstanding United States notes, or shall be applied to the reduction of the outstanding bonded indebtedness of the United States under regulations to be prescribed by the Secretary of the Treasury. Should a Federal reserve bank be dissolved or go into liquidation, any surplus remaining, after the payment of all debts, dividend requirements as hereinbefore provided, and the par value of the stock, shall be paid to and become the property of the United States and shall be similarly applied.

Federal reserve banks, including the capital stock and surplus therein, and the income derived therefrom shall be exempt from Federal, State, and local taxation, except taxes upon real estate.

Sec. 8. Section fifty-one hundred and fifty-four, United States Revised Statutes, is hereby amended to read as follows:

Any bank incorporated by special law of any State or of the United States or organized under the general laws of any State or of the United States and having an unimpaired capital sufficient to entitle it to become a national banking association under the provisions of the existing laws may, by the vote of the shareholders owning not less than fifty-one per centum of the capital stock of such bank or banking association, with the approval of the Comptroller of the Currency, be converted into a national banking association, with any name approved by the Comptroller of the Currency:

Provided, however, That said conversion shall not be in contravention of the State law. In such case the articles of association and organization certificate may be executed by a majority of the directors of the bank or banking institution, and the certificate shall declare that the owners of fifty-one per centum of the capital stock have authorized the directors to make such certificate and to change or convert the bank or banking institution into a national association. A majority of the directors, after executing the articles of association and the organization certificate, shall have power to execute all other papers and to do whatever may be required to make its organization perfect and complete as a national association. The shares of any such bank may continue to be for the same amount each as they were before the conversion, and the directors may continue to be directors of the association until others are elected or appointed in accordance with the provisions of the statutes of the United States. When the Comptroller has given to such bank or banking association a certificate that the provisions of this Act have been complied with, such bank or banking association, and all its stockholders, officers, and employees, shall have the same powers and privileges, and shall be subject to the same duties, liabilities, and regulations, in all respects, as shall have been prescribed by the Federal Reserve Act and by the national banking Act for associations originally organized as national banking associations.

State Banks as Members

"*Sec. 9.*[1] *Any bank incorporated by special law of any State, or organized under the general laws of any State or of the United States, desiring to become a member of the Federal Reserve System, may make application to the Federal Reserve Board, under such rules and regulations as it may prescribe, for the right to subscribe to the stock of the Federal reserve bank organized within the district in which the applying bank is located. Such application shall be for the same amount of stock that the applying bank would be required to subscribe to as a national bank. The Federal Reserve Board, subject to such conditions as it may prescribe, may permit the applying bank to become a stockholder of such Federal reserve bank.*

"*In acting upon such applications the Federal Reserve Board shall consider the financial condition of the applying bank, the general character of its management, and whether or not the*

[1] As amended June 21, 1917.

corporate powers exercised are consistent with the purposes of this Act.

"Whenever the Federal Reserve Board shall permit the applying bank to become a stockholder in the Federal reserve bank of the district its stock subscription shall be payable on call of the Federal Reserve Board, and stock issued to it shall be held subject to the provisions of this Act.

"All banks admitted to membership under authority of this section shall be required to comply with the reserve and capital requirements of this Act and to conform to those provisions of law imposed on national banks which prohibit such banks from lending on or purchasing their own stock, which relate to the withdrawal or impairment of their capital stock, and which relate to the payment of unearned dividends. Such banks and the officers, agents, and employees thereof shall also be subject to the provisions of and to the penalties prescribed by section fifty-two hundred and nine of the Revised Statutes, and shall be required to make reports of condition and of the payment of dividends to the Federal reserve bank of which they become a member. Not less than three of such reports shall be made annually on call of the Federal reserve bank on dates to be fixed by the Federal Reserve Board. Failure to make such reports within ten days after the date they are called for shall subject the offending bank to a penalty of $100 a day for each day that it fails to transmit such report; such penalty to be collected by the Federal reserve bank by suit or otherwise.

"As a condition of membership such banks shall likewise be subject to examinations made by direction of the Federal Reserve Board or of the Federal reserve bank by examiners selected or approved by the Federal Reserve Board.

"Whenever the directors of the Federal reserve bank shall approve the examinations made by the State authorities, such examinations and the reports thereof may be accepted in lieu of examinations made by examiners selected or approved by the Federal Reserve Board: Provided, however, That when it deems it necessary the Board may order special examinations by examiners of its own selection and shall in all cases approve the form of the report. The expenses of all examinations, other than those made by State authorities, shall be assessed against and paid by the banks examined.

"If at any time it shall appear to the Federal Reserve Board that a member bank has failed to comply with the provisions of this section or the regulations of the Federal Reserve Board made pursuant thereto, it shall be within the power of the board after

hearing to require such bank to surrender its stock in the Federal reserve bank and to forfeit all rights and privileges of membership. The Federal Reserve Board may restore membership upon due proof of compliance with the conditions imposed by this section.

"Any State bank or trust company desiring to withdraw from membership in a Federal reserve bank may do so, after six months' written notice shall have been filed with the Federal Reserve Board, upon the surrender and cancellation of all its holdings of capital stock in the Federal reserve bank: Provided, however, That no Federal reserve bank shall, except under express authority of the Federal Reserve Board, cancel within the same calendar year more than twenty-five per centum of its capital stock for the purpose of effecting voluntary withdrawals during that year. All such applications shall be dealt with in the order in which they are filed with the Board. Whenever a member bank shall surrender its stock holdings in a Federal reserve bank, or shall be ordered to do so by the Federal Reserve Board, under authority of law, all of its rights and privileges as a member bank shall thereupon cease and determine, and after due provision has been made for any indebtedness due or to become due to the Federal reserve bank it shall be entitled to a refund of its cash paid subscription with interest at the rate of one-half of one per centum per month from date of last dividend, if earned, the amount refunded in no event to exceed the book value of the stock at that time, and shall likewise be entitled to repayment of deposits and of any other balance due from the Federal reserve bank.

"No applying bank shall be admitted to membership in a Federal reserve bank unless it possesses a paid-up, unimpaired capital sufficient to entitle it to become a national banking association in the place where it is situated under the provisions of the national-bank act.

"Banks becoming members of the Federal Reserve System under authority of this section shall be subject to the provisions of this section and to those of this Act which relate specifically to member banks, but shall not be subject to examination under the provisions of the first two paragraphs of section fifty-two hundred and forty of the Revised Statutes as amended by section twenty-one of this Act. Subject to the provisions of this Act and to the regulations of the board made pursuant thereto, any bank becoming a member of the Federal Reserve System shall retain its full charter and statutory rights as a State bank or trust company, and may continue

to exercise all corporate powers granted it by the State in which it was created, and shall be entitled to all privileges of member banks: Provided, however, That no Federal reserve bank shall be permitted to discount for any State bank or trust company notes, drafts, or bills of exchange of any one borrower who is liable for borrowed money to such State bank or trust company in an amount greater than ten per centum of the capital and surplus of such State bank or trust company, but the discount of bills of exchange drawn against actually existing value and the discount of commercial or business paper actually owned by the person negotiating the same shall not be considered as borrowed money within the meaning of this section. The Federal reserve bank, as a condition of the discount of notes, drafts, and bills of exchange for such State bank or trust company, shall require a certificate or guaranty to the effect that the borrower is not liable to such bank in excess of the amount provided by this section, and will not be permitted to become liable in excess of this amount while such notes, drafts, or bills of exchange are under discount with the Federal reserve bank.

"It shall be unlawful for any officer, clerk, or agent of any bank admitted to membership under authority of this section to certify any check drawn upon such bank unless the person or company drawing the check has on deposit therewith at the time such check is certified an amount of money equal to the amount specified in such check. Any check so certified by duly authorized officers shall be a good and valid obligation against such bank, but the act of any such officer, clerk, or agent in violation of this section may subject such bank to a forfeiture of its membership in the Federal Reserve System upon hearing by the Federal Reserve Board."

Federal Reserve Board

Sec. 10. A Federal Reserve Board is hereby created which shall consist of seven members, including the Secretary of the Treasury and the Comptroller of the Currency, who shall be members ex officio, and five members appointed by the President of the United States, by and with the advice and consent of the Senate. In selecting the five appointive members of the Federal Reserve Board, not more than one of whom shall be selected from any one Federal reserve district, the President shall have due regard to a fair representation of the different commercial, industrial, and geographical divisions of the country. The five members of the Federal Reserve Board appointed by the President and confirmed as aforesaid shall devote their entire time to

the business of the Federal Reserve Board and shall each receive an annual salary of $12,000, payable monthly together with actual necessary traveling expenses, and the Comptroller of the Currency, as ex officio member of the Federal Reserve Board, shall, in addition to the salary now paid him as Comptroller of the Currency, receive the sum of $7,000 annually for his services as a member of said board.

The members of said board, the Secretary of the Treasury, the Assistant Secretaries of the Treasury, and the Comptroller of the Currency shall be ineligible during the time they are in office and for two years thereafter to hold any office, position, or employment in any member bank. Of the five members thus appointed by the President at least two shall be persons experienced in banking or finance. One shall be designated by the President to serve for two, one for four, one for six, one for eight, and one for ten years, and thereafter each member so appointed shall serve for a term of ten years unless sooner removed for cause by the President. Of the five persons thus appointed, one shall be designated by the President as governor and one as vice-governor of the Rederal Reserve Board. The governor of the Federal Reserve Board, subject to its supervision, shall be the active executive officer. The Secretary of the Treasury may assign offices in the Department of the Treasury for the use of the Federal Reserve Board. Each member of the Federal Reserve Board shall within fifteen days after notice of appointment make and subscribe to the oath of office.

The Federal Reserve Board shall have power to levy semi-annually upon the Federal reserve banks, in proportion to their capital stock and surplus, an assessment sufficient to pay its estimated expenses, and the salaries of its members and employees for the half year succeeding the levying of such assesment, together with any deficit carried forward from the preceding half year.

The first meeting of the Federal Reserve Board shall be held in Washington, District of Columbia, as soon as may be after the passage of this Act, at a date to be fixed by the Reserve Bank Organization Committee. The Secretary of the Treasury shall be ex officio chairman of the Federal Reserve Board. No member of the Federal Reserve Board shall be an officer or director of any bank, banking institution, trust company, or Federal reserve bank nor hold stock in any bank, banking institution, or trust company; and before entering upon his duties as a member of the Federal Reserve Board he shall certify under oath to the Secretry of the Treasury that he has complied with

this requirement. Whenever a vacancy shall occur, other than by expiration of term, among the five members of the Federal Reserve Board appointed by the President, as above provided, a successor shall be appointed by the President, with the advice and consent of the Senate, to fill such vacancy, and when appointed he shall hold office for the unexpired term of the member whose place he is selected to fill.

The President shall have power to fill all vacancies that may happen on the Federal Reserve Board during the recess of the Senate, by granting commissions which shall expire thirty days after the next session of the Senate convenes.

Nothing in this Act contained shall be construed as taking away any powers heretofore vested by law in the Secretry of the Treasury which relate to the supervision, management, and control of the Treasury Department and bureaus under such department, and wherever any power vested by this Act in the Federal Reserve Board or the Federal reserve agent appears to conflict with the powers of the Secretary of the Treasury, such powers shall be exercised subject to the supervision and control of the Secretary.

The Federal Reserve Board shall annually make a full report of its operations to the Speaker of the House of Representatives, who shall cause the same to be printed for the information of the Congress.

Section three hundred and twenty-four of the Revised Statutes of the United States shall be amended so as to read as follows: There shall be in the Department of the Treasury a bureau charged with the execution of all laws passed by Congress relating to the issue and regulation of national currency secured by United States bonds and, under the general supervision of the Federal Reserve Board, of all Federal reserve notes, the chief officer of which bureau shall be called the Comptroller of the Currency and shall perform his duties under the general directions of the Secretary of the Treasury.

Sec. 11. The Federal Reserve Board shall be authorized and empowered:

(a) To examine at its discretion the accounts, books, and affairs of each Federal reserve bank and of each member bank and to require such statements and reports as it may deem necessary. The said board shall publish once each week a statement showing the condition of each Federal reserve bank and a consolidated statement for all Federal reserve banks. Such statements shall show in detail the assets and liabilities of the Federal reserve banks, single and combined, and shall furnish full informa-

tion regarding the character of the money held as reserve and the amount, nature, and maturities of the paper and other investments owned or held by Federal reserve banks.

(b) To permit, or, on the affirmative vote of at least five members of the Reserve Board, to require Federal reserve banks to rediscount the discounted paper of other Federal reserve banks at rates of interest to be fixed by the Federal Reserve Board.

(c) To suspend for a period not exceeding thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days, any reserve requirements specified in this Act: Provided, That it shall establish a graduated tax upon the amounts by which the reserve requirements of this Act may be permitted to fall below the level hereinafter *specified: And provided further*, That when the gold reserve held against Federal reserve notes falls below forty per centum, the Federal Reserve Board shall establish a graduated tax of not more than one per centum per annum upon such deficiency until the reserves fall to thirty-two and one-half per centum, and when said reserve falls below thirty-two and one-half per centum, a tax at the rate increasingly of not less than one and one-half per centum per annum upon each two and one-half per centum or fraction thereof that such reserve falls below thirty-two and one-half per centum. The tax shall be paid by the reserve bank, but the reserve bank shall add an amount equal to said tax to the rates of interest and discount fixed by the Federal Reserve Board.

(d) To supervise and regulate through the bureau under the charge of the Comptroller of the Currency the issue and retirement of Federal reserve notes, and to prescribe rules and regulations under which such notes may be delivered by the Comptroller to the Federal reserve agents applying therefor.

(e) To add to the number of cities classified as reserve and central reserve cities under existing law in which national banking associations are subject to the reserve requirements set forth in section twenty of this Act; or to reclassify existing reserve and central reserve cities or to terminate their designation as such.

(f) To suspend or remove any officer or director of any Federal reserve bank, the cause of such removal to be forthwith communicated in writing by the Federal Reserve Board to the removed officer or director and to said bank.

(g) To require the writing off of doubtful or worthless assets upon the books and balance sheets of Federal reserve banks.

(h) To suspend, for the violation of any of the provisions

of this Act, the operations of any Federal reserve bank, to take possession thereof, administer the same during the period of suspension, and, when deemed advisable, to liquidate or reorganize such bank.

(i) To require bonds of Federal reserve agents, to make regulations for the safeguarding of all collateral, bonds, Federal reserve notes, money, or property of any kind deposited in the hands of such agents, and said board shall perform the duties, functions, or services specified in this Act, and make all rules and regulations necessary to enable said board effectively to perform the same.

(j) To exercise general supervision over said Federal reserve banks.

(k) To grant by special permit to national banks applying therefor, when not in contravention of State or local law, the right to act as trustee, executor, administrator, or registrar of stocks and bonds under such rules and regulations as the said board may prescribe.

(l) To employ such attorneys, experts, assistants, clerks, or other employees as may be deemed necessary to conduct the business of the board. All salaries and fees shall be fixed in advance by said board and shall be paid in the same manner as the salaries of the members of said board. All such attorneys, experts, assistants, clerks, and other employees shall be appointed without regard to the provisions of the Act of January sixteenth, eighteen hundred and eighty-three (volume twenty-two, United States Statutes at Large, page four hundred and three), and amendments thereto, or any rule or regulation made in pursuance thereof: Provided, That nothing herein shall prevent the President from placing said employees in the classified service.

"*(m)*[1] *Upon the affirmative vote of not less than five of its members the Federal Reserve Board shall have power, from time to time, by general ruling, covering all districts alike, to permit member banks to carry in the Federal reserve banks of their respective districts any portion of their reserves now required by section nineteen of this Act to be held in their own vaults.*"

Federal Advisory Council

Sec. 12. There is hereby created a Federal Advisory Council, which shall consist of as many members as there are Federal

[1] As inserted at the end of section 11, by the act of Sept. 7, 1916 Public—No. 270—64th Congress. (H. R. 13391.)

reserve districts. Each Federal reserve bank by its board of directors shall annually select from its own Federal reserve district one member of said council, who shall receive such compensation and allowances as may be fixed by his board of directors subject to the approval of the Federal Reserve Board. The meetings of said advisory council shall be held at Washington, District of Columbia, at least four times each year, and oftener if called by the Federal Reserve Board. The council may in addition to the meetings above provided for hold such other meetings in Washington, District of Columbia, or elsewhere, as it may deem necessary, may select its own officers and adopt its own methods of procedure, and a majority of its members shall constitute a quorum for the transaction of business. Vacancies in the council shall be filled by the respective reserve banks, and members selected to fill vacancies shall serve for the unexpired term.

The Federal Advisory Council shall have power, by itself or through its officers, (1) to confer directly with the Federal Reserve Board on general business conditions; (2) to make oral or written representations concerning matters within the jurisdiction of said board; (3) to call for information and to make recommendations in regard to discount rates, rediscount business, note issues, reserve conditions in the various districts, the purchase and sale of gold or securities by reserve banks, open-market operations by said banks, and the general affairs of the reserve banking system.

Powers of Federal Reserve Banks

"*Sec. 13.*[1] *Any Federal reserve bank may receive from any of its member banks, and from the United States, deposits of current funds in lawful money, national-bank notes, Federal reserve notes, or checks, and drafts, payable upon presentation, and also, for collection, maturing notes and bills; or, solely for purposes of exchange or of collection, may receive from other Federal reserve banks deposits of current funds in lawful money, national-bank notes, or checks upon other Federal reserve banks, and checks and drafts, payable upon presentation within its district, and maturing notes and bills payable within its district; or, solely for the purposes of exchange or of collection, may receive from any non-member bank or trust company deposits of current funds in lawful money, national-bank notes, Federal reserve notes, checks and drafts payable upon presentation, or*

[1] Paragraph 1 as amended June 21, 1917.

maturing notes and bills: Provided, Such non-member bank or trust company maintains with the Federal reserve bank of its district a balance sufficient to offset the items in transit held for its account by the Federal reserve bank: Provided further, That nothing in this or any other section of this Act shall be construed as prohibiting a member or non-member bank from making reasonable charges, to be determined and regulated by the Federal Reserve Board, but in no case to exceed 10 cents per $100 or fraction thereof, based on the total of checks and drafts presented at any one time, for collection or payment of checks and drafts and remission therefor by exchange or otherwise; but no such charges shall be made against the Federal reserve banks.

[1] *"Upon the indorsement of any of its member banks, which shall be deemed a waiver of demand, notice and protest by such bank as to its own indorsement exclusively, any Federal reserve bank may discount notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount, within the meaning of this Act. Nothing in this Act contained shall be construed to prohibit such notes, drafts, and bills of exchange, secured by staple agricultural products, or other goods, wares, or merchandise from being eligible for such discount; but such definition shall not include notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States. Notes, drafts, and bills admitted to discount under the terms of this paragraph must have a maturity at the time of discount of not more than ninety days, exclusive of days of grace: Provided, That notes, drafts, and bills drawn or issued for agricultural purposes or based on live stock and having a maturity not exceeding six months, exclusive of days of grace, may be discounted in an amount to be limited to a percentage of the assets of the Federal reserve bank, to be ascertained and fixed by the Federal Reserve Board.*

"The aggregate of such notes, drafts, and bills bearing the signature or indorsement of any one borrower, whether a person, company, firm, or corporation, rediscounted for any one bank shall at no time exceed ten per centum of the unimpaired capital

[1] Paragraphs 2, 3 and 4 as amended Sept. 7, 1916. Public—No. 270—64th Congress. (H. R. 13391.)

and surplus of said bank; but this restriction shall not apply to the discount of bills of exchange drawn in good faith against actually existing values.

"Any Federal reserve bank may discount acceptances of the kinds hereinafter described, which have a maturity at the time of discount of not more than three months' sight, exclusive of days of grace, and which are indorsed by at least one member bank.

[1]*"Any member bank may accept drafts or bills of exchange drawn upon it having not more than six months' sight to run, exclusive of days of grace, which grow out of transactions involving the importation or exportation of goods; or which grow out of transactions involving the domestic shipment of goods provided shipping documents conveying or securing title are attached at the time of acceptance; or which are secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title covering readily marketable staples. No member bank shall accept, whether in a foreign or domestic transaction, for any one person, company, firm, or corporation to an amount equal at any time in the aggregate to more than ten per centum of its paid-up and unimpaired capital stock and surplus, unless the bank is secured either by attached documents or by some other actual security growing out of the same transaction as the acceptance; and no bank shall accept such bills to an amount equal at any time in the aggregate to more than one-half of its paid-up and unimpaired capital stock and surplus: Provided, however, That the Federal Reserve Board, under such general regulations as it may prescribe, which shall apply to all banks alike regardless of the amount of capital stock and surplus, may authorize any member bank to accept such bills to an amount not exceeding at any time in the aggregate one hundred per centum of its paid-up and unimpaired capital stock and surplus: Provided, further, That the aggregate of acceptances growing out of domestic transactions shall in no event exceed fifty per centum of such capital stock and surplus."*

[2]*"Any Federal reserve bank may make advances to its member banks on their promissory notes for a period not exceeding fifteen days at rates to be established by such Federal reserve banks, subject to the review and determination of the Federal Reserve Board, provided such promissory notes are secured by such notes, drafts, bills of exchange, or bankers' acceptances as are eligible for rediscount or for purchase by Federal reserve banks under*

[1] Paragraph 5 as amended June 21, 1917.

[2] Following paragraphs as amended September 7, 1916. Public—No. 270—64th Congress. (H. R. 13391.)

the provisions of this Act, or by the deposit or pledge of bonds or notes of the United States."

Section fifty-two hundred and two of the Revised Statutes of the United States is hereby amended so as to read as follows: "No national banking association shall at any time be indebted, or in any way liable, to an amount exceeding the amount of its capital stock at such time actually paid in and remaining undiminished by losses or otherwise, except on account of demands of the nature following:

"First. Notes of circulation.

"Second. Moneys deposited with or collected by the association.

"Third. Bills of exchange or drafts drawn against money actually on deposit to the credit of the association, or due thereto.

"Fourth. Liabilities to the stockholders of the association for dividends and reserve profits.

"Fifth. Liabilities incurred under the provisions of the Federal reserve Act.

"The discount and rediscount and the purchase and sale by any Federal reserve bank of any bills receivable and of domestic and foreign bills of exchange, and of acceptances authorized by this Act, shall be subject to such restrictions, limitations, and regulations as may be imposed by the Federal Reserve Board.

"That in addition to the powers now vested by law in national banking associations organized under the laws of the United States any such association located and doing business in any place the population of which does not exceed five thousand inhabitants, as shown by the last preceding decennial census, may, under such rules and regulations as may be prescribed by the Comptroller of the Currency, act as the agent for any fire, life, or other insurance company authorized by the authorities of the State in which said bank is located to do business in said State, by soliciting and selling insurance and collecting premiums on policies issued by such company; and may receive for services so rendered such fees or commissions as may be agreed upon between the said association and the insurance company for which it may act as agent; and may also act as the broker or agent for others in making or procuring loans on real estate located within one hundred miles of the place in which said bank may be located, receiving for such services a reasonable fee or commission: Provided, however, That no such bank shall in any case guarantee either the principal or interest of any such loans or assume or guarantee the payment of any premium on insurance policies issued through its agency by its principal: And provided further,

That the bank shall not guarantee the truth of any statement made by an assured in filing his application for insurance.

"Any member bank may accept drafts or bills of exchange drawn upon it having not more than three months' sight to run, exclusive of days of grace, drawn under regulations to be prescribed by the Federal Reserve Board by banks or bankers in foreign countries or dependencies or insular possessions of the United States for the purpose of furnishing dollar exchange as required by the usages of trade in the respective countries, dependencies, or insular possessions. Such drafts or bills may be acquired by Federal reserve banks in such amounts and subject to such regulations, restrictions, and limitations as may be prescribed by the Federal Reserve Board: Provided, however, That no member bank shall accept such drafts or bills of exchange referred to in this paragraph for any one bank to an amount exceeding in the aggregate ten per centum of the paid-up and unimpaired capital and surplus of the accepting bank unless the draft or bill of exchange is accompanied by documents conveying or securing title or by some other adequate security: Provided further, That no member bank shall accept such drafts or bills in an amount exceeding at any time the aggregate of one-half of its paid-up and unimpaired capital and surplus."

Open-Market Operations

Sec. 14. Any Federal reserve bank may, under rules and regulations prescribed by the Federal Reserve Board, purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities by this Act made eligible for rediscount, with or without the indorsement of a member bank.

Every Federal reserve bank shall have power:

(a) To deal in gold coin and bullion at home or abroad, to make loans thereon, exchange Federal reserve notes for gold, gold coin, or gold certificates, and to contract for loans of gold coin or bullion, giving therefor, when necessary, acceptable security, including the hypothecation of United States bonds or other securities which Federal reserve banks are authorized to hold;

(b) To buy and sell, at home or abroad, bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months, issued in anticipation of the collection of taxes or in

anticipation of the receipt of assured revenues by any State, county, district, political subdivision, or municipality in the continental United States, including irrigation, drainage, and reclamation districts, such purchases to be made in accordance with rules and regulations prescribed by the Federal Reserve Board;

(c) To purchase from member banks and to sell, with or without its indorsement, bills of exchange arising out of commercial transactions, as hereinbefore defined;

(d) To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal reserve bank for each class of paper, which shall be fixed with a view of accommodating commerce and business;

[1] *"(e) To establish accounts with other Federal reserve banks for exchange purposes and, with the consent or upon the order and direction of the Federal Reserve Board and under regulations to be prescribed by said board, to open and maintain accounts in foreign countries, appoint correspondents, and establish agencies in such countries wheresoever it may be deemed best for the purpose of purchasing, selling, and collecting bills of exchange, and to buy and sell, with or without its indorsement, through such correspondents or agencies, bills of exchange (or acceptances) arising out of actual commercial transactions which have not more than ninety days to run, exclusive of days of grace, and which bear the signature of two or more responsible parties, and, with the consent of the Federal Reserve Board, to open and maintain banking accounts for such foreign correspondents or agencies. Whenever any such account has been opened or agency or correspondent has been appointed by a Federal reserve bank, with the consent of or under the order and direction of the Federal Reserve Board, any other Federal reserve bank may, with the consent and approval of the Federal Reserve Board, be permitted to carry on or conduct, through the Federal reserve bank opening such account or appointing such agency or correspondent, any transaction authorized by this section under rules and regulations to be prescribed by the board."*

Government Deposits

Sec. 15. The moneys held in the general fund of the Treasury, except the five per centum fund for the redemption of outstanding national-bank notes and the funds provided in this Act for

[1] Subsection (e) as amended June 21, 1917.

the redemption of Federal reserve notes may, upon the direction of the Secretary of the Treasury, be deposited in Federal reserve banks, which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States; and the revenues of the Government or any part thereof may be deposited in such banks, and disbursements may be made by checks drawn against such deposits.

No public funds of the Philippine Islands, or of the postal savings, or any Government funds, shall be deposited in the continental United States in any bank not belonging to the system established by this Act: Provided, however, That nothing in this Act shall be construed to deny the right of the Secretary of the Treasury to use member banks as depositories.

Note Issues

Sec. 16. Federal reserve notes, to be issued at the discretion of the Federal Reserve Board for the purpose of making advances to Federal reserve banks through the Federal reserve agents as hereinafter set forth and for no other purpose, are hereby authorized. The said notes shall be obligations of the United States and shall be receivable by all national and member banks and Federal reserve banks and for all taxes, customs, and other public dues. They shall be redeemed in gold on demand at the Treasury Department of the United States, in the city of Washington, District of Columbia, or in gold or lawful money at any Federal reserve bank.

[1] "*Any Federal reserve bank may make application to the local Federal reserve agent for such amount of the Federal reserve notes hereinbefore provided for as it may require. Such application shall be accompanied with a tender to the local Federal reserve agent of collateral in amount equal to the sum of the Federal reserve notes thus applied for and issued pursuant to such application. The collateral security thus offered shall be notes, drafts, bills of exchange, or acceptances acquired under the provisions of section thirteen of this Act, or bills of exchange indorsed by a member bank of any Federal reserve district and purchased under the provisions of section fourteen of this Act, or bankers' acceptances purchased under the provisions of said section fourteen, or gold or gold certificates; but in no event shall such collateral security, whether gold, gold certificates, or eligible paper, be less than the amount of Federal reserve notes applied for. The Federal reserve agent shall each day notify the Federal*

[1] Paragraphs 2, 3, 4, 5, 6 and 7 as amended June 21, 1917.

Reserve Board of all issues and withdrawals of Federal reserve notes to and by the Federal reserve bank to which he is accredited. The said Federal Reserve Board may at any time call upon a Federal reserve bank for additional security to protect the Federal reserve notes issued to it.

"Every Federal reserve bank shall maintain reserves in gold or lawful money of not less than thirty-five per centum against its deposits and reserves in gold of not less than forty per centum against its Federal reserve notes in actual circulation: Provided, however, That when the Federal reserve agent holds gold or gold certificates as collateral for Federal reserve notes issued to the bank such gold or gold certificates shall be counted as part of the gold reserve which such bank is required to maintain against its Federal reserve notes in actual circulation. Notes so paid out shall bear upon their faces a distinctive letter and serial number which shall be assigned by the Federal Reserve Board to each Federal reserve bank. Whenever Federal reserve notes issued through one Federal reserve bank shall be received by another Federal reserve bank, they shall be promptly returned for credit or redemption to the Federal reserve bank through which they were originally issued or, upon direction of such Federal reserve bank, they shall be forwarded direct to the Treasurer of the United States to be retired. No Federal reserve bank shall pay out notes issued through another under penalty of a tax of ten per centum upon the face value of notes so paid out. Notes presented for redemption at the Treasury of the United States shall be paid out of the redemption fund and returned to the Federal reserve banks through which they were originally issued, and thereupon such Federal reserve bank shall, upon demand of the Secretary of the Treasury, reimburse such redemption fund in lawful money or, if such Federal reserve notes have been redeemed by the Treasurer in gold or gold certificates, then such funds shall be reimbursed to the extent deemed necessary by the Secretary of the Treasury in gold or gold certificates, and such Federal reserve bank shall, so long as any of its Federal reserve notes remain outstanding, maintain with the Treasurer in gold an amount sufficient in the judgment of the Secretary to provide for all redemptions to be made by the Treasurer. Federal reserve notes received by the Treasurer otherwise than for redemption may be exchanged for gold out of the redemption fund hereinafter provided and returned to the reserve bank through which they were originally issued, or they may be returned to such bank for the credit of the United States. Federal reserve notes unfit for circulation shall be returned by the Fed-

eral reserve agents to the Comptroller of the Currency for cancellation and destruction.

"The Federal Reserve Board shall require each Federal reserve bank to maintain on deposit in the Treasury of the United States a sum in gold sufficient in the judgment of the Secretary of the Treasury for the redemption of the Federal reserve notes issued to such bank, but in no event less than five per centum of the total amount of notes issued less the amount of gold or gold certificates held by the Federal reserve agent as collateral security; but such deposit of gold shall be counted and included as part of the forty per centum reserve hereinbefore required. The board shall have the right, acting through the Federal reserve agent, to grant, in whole or in part, or to reject entirely the application of any Federal reserve bank for Federal reserve notes; but to the extent that such application may be granted the Federal Reserve Board shall, through its local Federal reserve agent, supply Federal reserve notes to the banks so applying, and such bank shall be charged with the amount of notes issued to it and shall pay such rate of interest as may be established by the Federal Reserve Board on only that amount of such notes which equals the total amount of its outstanding Federal reserve notes less the amount of gold or gold certificates held by the Federal reserve agent as collateral security. Federal reserve notes issued to any such bank shall, upon delivery, together with such notes of such Federal reserve bank as may be issued under section eighteen of this Act upon security of United States two per centum Government bonds, become a first and paramount lien on all the assets of such bank.

"Any Federal reserve bank may at any time reduce its liability for outstanding Federal reserve notes by depositing with the Federal reserve agent its Federal reserve notes, gold, gold certificates, or lawful money of the United States. Federal reserve notes so deposited shall not be reissued, except upon compliance with the conditions of an original issue.

"The Federal reserve agent shall hold such gold, gold certificates, or lawful money available exclusively for exchange for the outstanding Federal reserve notes when offered by the reserve bank of which he is a director. Upon the request of the Secretary of the Treasury the Federal Reserve Board shall require the Federal reserve agent to transmit to the Treasurer of the United States so much of the gold held by him as collateral security for Federal reserve notes as may be required for the exclusive purpose of the redemption of such Federal reserve notes, but such gold when deposited with the Treasurer shall be counted and con-

sidered as if collateral security on deposit with the Federal reserve agent.

"Any Federal reserve bank may at its discretion withdraw collateral deposited with the local Federal reserve agent for the protection of its Federal reserve notes issued to it and shall at the same time substitute therefor other collateral of equal amount with the approval of the Federal reserve agent under regulations to be prescribed by the Federal Reserve Board. Any Federal reserve bank may retire any of its Federal reserve notes by depositing them with the Federal reserve agent or with the Treasurer of the United States, and such Federal reserve bank shall thereupon be entitled to receive back the collateral deposited with the Federal reserve agent for the security of such notes. Federal reserve banks shall not be required to maintain the reserve or the redemption fund heretofore provided for against Federal reserve notes which have been retired. Federal reserve notes so deposited shall not be reissued except upon compliance with the conditions of an original issue."

All Federal reserve notes and all gold, gold certificates, and lawful money issued to or deposited with any Federal reserve agent under the provisions of the Federal reserve act shall hereafter be held for such agent, under such rules and regulations as the Federal Reserve Board may prescribe, in the joint custody of himself and the Federal reserve bank to which he is accredited. Such agent and such Federal reserve bank shall be jointly liable for the safe-keeping of such Federal reserve notes, gold, gold certificates, and lawful money. Nothing herein contained, however, shall be construed to prohibit a Federal reserve agent from depositing gold or gold certificates with the Federal Reserve Board, to be held by such board subject to his order, or with the Treasurer of the United States for the purposes authorized by law.

In order to furnish suitable notes for circulation as Federal reserve notes, the Comptroller of the Currency shall, under the direction of the Secretary of the Treasury, cause plates and dies to be engraved in the best manner to guard against counterfeits and fraudulent alterations, and shall have printed therefrom and numbered such quantities of such notes of the denominations of \$5, \$10, \$20, \$50, \$100, as may be required to supply the Federal reserve banks. Such notes shall be in form and tenor as directed by the Secretary of the Treasury under the provisions of this Act and shall bear the distinctive numbers of the several Federal reserve banks through which they are issued.

When such notes have been prepared, they shall be deposited

in the Treasury, or in the subtreasury or mint of the United States nearest the place of business of each Federal reserve bank and shall be held for the use of such bank subject to the order of the Comptroller of the Currency for their delivery, as provided by this Act.

The plates and dies to be procured by the Comptroller of the Currency for the printing of such circulating notes shall remain under his control and direction, and the expenses necessarily incurred in executing the laws relating to the procuring of such notes, and all other expenses incidental to their issue and retirement, shall be paid by the Federal reserve banks, and the Federal Reserve Board shall include in its estimate of expenses levied against the Federal reserve banks a sufficient amount to cover the expenses herein provided for.

The examination of plates, dies, bed pieces, and so forth, and regulations relating to such examination of plates, dies, and so forth, of national-bank notes provided for in section fifty-one hundred and seventy-four Revised Statutes, is hereby extended to include notes herein provided for.

Any appropriation heretofore made out of the general funds of the Treasury for engraving plates and dies, the purchase of distinctive paper, or to cover any other expense in connection with the printing of national-bank notes or notes provided for by the Act of May thirtieth, nineteen hundred and eight, and any distinctive paper that may be on hand at the time of the passage of this Act may be used in the discretion of the Secretary for the purposes of this Act, and should the appropriations heretofore made be insufficient to meet the requirements of this Act in addition to circulating notes provided for by existing law, the Secretary is hereby authorized to use so much of any funds in the Treasury not otherwise appropriated for the purpose of furnishing the notes aforesaid: Provided, however, That nothing in this section contained shall be construed as exempting national banks or Federal reserve banks from their liability to reimburse the United States for any expenses incurred in printing and issuing circulating notes.

Every Federal reserve bank shall receive on deposit at par from member banks or from Federal reserve banks checks and drafts drawn upon any of its depositors, and when remitted by a Federal reserve bank, checks and drafts drawn by any depositor in any other Federal reserve bank or member bank upon funds to the credit of said depositor in said reserve bank or member bank. Nothing herein contained shall be construed as prohibiting a member bank from charging its actual expense

incurred in collecting and remitting funds, or for exchange sold to its patrons. The Federal Reserve Board shall, by rule, fix the charges to be collected by the member banks from its patrons whose checks are cleared through the Federal reserve bank and the charge which may be imposed for the service of clearing or collection rendered by the Federal reserve bank.

The Federal Reserve Board shall make and promulgate from time to time regulations governing the transfer of funds and charges therefor among Federal reserve banks and their branches, and may at its discretion exercise the functions of a clearing house for such Federal reserve banks, or may designate a Federal reserve bank to exercise such functions, and may also require each such bank to exercise the functions of a clearing house for its member banks.

[1] *"That the Secretary of the Treasury is hereby authorized and directed to receive deposits of gold coin or of gold certificates with the Treasurer or any assistant treasurer of the United States when tendered by any Federal reserve bank or Federal reserve agent for credit to its or his account with the Federal Reserve Board. The Secretary shall prescribe by regulation the form of receipt to be issued by the Treasurer or Assistant Treasurer to the Federal reserve bank or Federal reserve agent making the deposit, and a duplicate of such receipt shall be delivered to the Federal Reserve Board by the Treasurer at Washington upon proper advices from any assistant treasurer that such deposit has been made. Deposits so made shall be held subject to the orders of the Federal Reserve Board and shall be payable in gold coin or gold certificates on the order of the Federal Reserve Board to any Federal reserve bank or Federal reserve agent at the Treasury or at the Subtreasury of the United States nearest the place of business of such Federal reserve bank or such Federal reserve agent: Provided, however, That any expense incurred in shipping gold to or from the Treasury or subtreasuries in order to make such payments, or as a result of making such payments, shall be paid by the Federal Reserve Board and assessed against the Federal reserve banks. The order used by the Federal Reserve Board in making such payments shall be signed by the governor or vice governor, or such other officers or members as the board may by regulation prescribe. The form of such order shall be approved by the Secretary of the Treasury.*

"The expenses necessarily incurred in carrying out these provisions, including the cost of the certificates or receipts issued for deposits received, and all expenses incident to the handling

[1] Added to Section 16, June 21, 1917.

of such deposits shall be paid by the Federal Reserve Board and included in its assessments against the several Federal reserve banks.

"Gold deposits standing to the credit of any Federal reserve bank with the Federal Reserve Board shall, at the option of said bank, be counted as part of the lawful reserve which it is required to maintain against outstanding Federal reserve notes, or as a part of the reserve it is required to maintain against deposits.

"Nothing in this section shall be construed as amending section six of the Act of March fourteenth, nineteen hundred, as amended by the Acts of March fourth, nineteen hundred and seven, March second, nineteen hundred and eleven, and June twelfth, nineteen hundred and sixteen, nor shall the provisions of this section be construed to apply to the deposits made or to the receipts or certificates issued under those Acts."

"Sec. 17.[1] *So much of the provisions of section fifty-one hundred and fifty-nine of the Revised Statutes of the United States, and section four of the Act of June twentieth, eighteen hundred and seventy-four, and section eight of the Act of July twelfth, eighteen hundred and eighty-two, and of any other provisions of existing statutes as require that before any national banking association shall be authorized to commence banking business it shall transfer and deliver to the Treasurer of the United States a stated amount of United States registered bonds, and so much of those provisions or of any other provisions of existing statutes as require any national banking association now or hereafter organized to maintain a minimum deposit of such bonds with the Treasurer is hereby repealed."*

Refunding Bonds

Sec. 18. After two years from the passage of this Act, and at any time during a period of twenty years thereafter, any member bank desiring to retire the whole or any part of its circulating notes, may file with the Treasurer of the United States an application to sell for its account, at par and accrued interest, United States bonds securing circulation to be retired.

The Treasurer shall, at the end of each quarterly period, furnish the Federal Reserve Board with a list of such applications, and the Federal Reserve Board may, in its discretion, require the Federal reserve banks to purchase such bonds from the banks whose applications have been filed with the Treasurer

[1] As amended June 21, 1917.

at least ten days before the end of any quarterly period at which the Federal Reserve Board may direct the purchase to be made: Provided, That Federal reserve banks shall not be permitted to purchase an amount to exceed $25,000,000 of such bonds in any one year, and which amount shall include bonds acquired under section four of this Act by the Federal reserve bank.

Provided further, That the Federal Reserve Board shall allot to each Federal reserve bank such proportion of such bonds as the capital and surplus of such bank shall bear to the aggregate capital and surplus of all the Federal reserve banks.

Upon notice from the Treasurer of the amount of bonds so sold for its account, each member bank shall duly assign and transfer, in writing, such bonds to the Federal reserve bank purchasing the same, and such Federal reserve bank shall, thereupon, deposit lawful money with the Treasurer of the United States for the purchase price of such bonds, and the Treasurer shall pay to the member bank selling such bonds any balance due after deducting a sufficient sum to redeem its outstanding notes secured by such bonds, which notes shall be canceled and permanently retired when redeemed.

The Federal reserve banks purchasing such bonds shall be permitted to take out an amount of circulating notes equal to the par value of such bonds.

Upon the deposit with the Treasurer of the United States of bonds so purchased, or any bonds with the circulating privilege acquired under section four of this Act, any Federal reserve bank making such deposit in the manner provided by existing law, shall be entitled to receive from the Comptroller of the Currency circulating notes in blank, registered and countersigned as provided by law, equal in amount to the par value of the bonds so deposited. Such notes shall be the obligations of the Federal reserve bank procuring the same, and shall be in form prescribed by the Secretary of the Treasury, and to the same tenor and effect as national-bank notes now provided by law. They shall be issued and redeemed under the same terms and conditions as national-bank notes except that they shall not be limited to the amount of the capital stock of the Federal reserve bank issuing them.

Upon application of any Federal reserve bank, approved by the Federal Reserve Board, the Secretary of the Treasury may issue, in exchange for United States two per centum gold bonds bearing the circulation privilege, but against which no circulation is outstanding, one-year gold notes of the United States without the circulation privilege, to an amount not to exceed one-half of

two per centum bonds so tendered for exchange, and thirty-year three per centum gold bonds without the circulation privilege for the remainder of the two per centum bonds so tendered: *Provided*, That at the time of such exchange the Federal reserve bank obtaining such one-year gold notes shall enter into an obligation with the Secretary of the Treasury binding itself to purchase from the United States for gold at the maturity of such one-year notes, an amount equal to those delivered in exchange for such bonds, if so requested by the Secretary, and at each maturity of one-year notes so purchased by such Federal reserve bank, to purchase from the United States such an amount of one-year notes as the Secretary may tender to such bank, not to exceed the amount issued to such bank in the first instance, in exchange for two per centum United States gold bonds; said obligation to purchase at maturity such notes shall continue in force for a period not to exceed thirty years.

For the purpose of making the exchange herein provided for, the Secretary of the Treasury is authorized to issue at par Treasury notes in coupon or registered form as he may prescribe in denominations of one hundred dollars, or any multiple thereof, bearing interest at the rate of three per centum per annum, payable quarterly, such Treasury notes to be payable not more than one year from the date of their issue in gold coin of the present standard value, and to be exempt as to principal and interest from the payment of all taxes and duties of the United States except as provided by this Act, as well as from taxes in any form by or under State, municipal, or local authorities. And for the same purpose, the Secretary is authorized and empowered to issue United States gold bonds at par, bearing three per centum interest payable thirty years from date of issue, such bonds to be of the same general tenor and effect and to be issued under the same general terms and conditions as the United States three per centum bonds without the circulation privilege now issued and outstanding.

Upon application of any Federal reserve bank, approved by the Federal Reserve Board, the Secretary may issue at par such three per centum bonds in exchange for the one-year gold notes herein provided for.

Bank Reserves

"*Sec. 19.*[1] *Demand deposits within the meaning of this Act shall comprise all deposits payable within thirty days, and time deposits shall comprise all deposits payable after thirty days, all*

[1] As amended June 21, 1917.

savings accounts and certificates of deposit which are subject to not less than thirty days' notice before payment, and all postal savings deposits.

"Every bank, banking association, or trust company which is or which becomes a member of any Federal reserve bank shall establish and maintain reserve balances with its Federal reserve bank as follows:

"(a) If not in a reserve or central reserve city, as now or hereafter defined, it shall hold and maintain with the Federal reserve bank of its district an actual net balance equal to not less than seven per centum of the aggregate amount of its demand deposits and three per centum of its time deposits.

"(b) If in a reserve city, as now or hereafter defined, it shall hold and maintain with the Federal reserve bank of its district an actual net balance equal to not less than ten per centum of the aggregate amount of its demand deposits and three per centum of its time deposits.

"(c) If in a central reserve city, as now or hereafter defined, it shall hold and maintain with the Federal reserve bank of its district an actual net balance equal to not less than thirteen per centum of the aggregate amount of its demand deposits and three per centum of its time deposits.

"No member bank shall keep on deposit with any State bank or trust company which is not a member bank a sum in excess of ten per centum of its own paid-up capital and surplus. No member bank shall act as the medium or agent of a non-member bank in applying for or receiving discounts from a Federal reserve bank under the provisions of this Act, except by permission of the Federal Reserve Board.

"The required balance carried by a member bank with a Federal reserve bank may, under the regulations and subject to such penalties as may be prescribed by the Federal Reserve Board, be checked against and withdrawn by such member bank for the purpose of meeting existing liabilities: Provided, however, That no bank shall at any time make new loans or shall pay any dividends unless and until the total balance required by law is fully restored.

"In estimating the balances required by this Act, the net difference of amounts due to and from other banks shall be taken as the basis for ascertaining the deposits against which required balances with Federal reserve banks shall be determined.

"National banks, or banks organized under local laws, located in Alaska or in a dependency or insular possession or any part of the United States outside the continental United States may

remain non-member banks, and shall in that event maintain reserves and comply with all the conditions now provided by law regulating them; or said banks may, with the consent of the Reserve Board, become member banks of any one of the reserve districts, and shall in that event take stock, maintain reserves, and be subject to all the other provisions of this Act."

Sec. 20. So much of sections two and three of the Act of June twentieth, eighteen hundred and seventy-four, entitled "An Act fixing the amount of United States notes, providing for a redistribution of the national-bank currency, and for other purposes," as provides that the fund deposited by any national banking association with the Treasurer of the United States for the redemption of its notes shall be counted as a part of its lawful reserve as provided in the Act aforesaid, is hereby repealed. And from and after the passage of this Act such fund of five per centum shall in no case be counted by any national banking association as a part of its lawful reserve.

Bank Examinations

Sec. 21. Section fifty-two hundred and forty, United States Revised Statutes, is amended to read as follows:

The Comptroller of the Currency, with the approval of the Secretary of the Treasury, shall appoint examiners who shall examine every member bank at least twice in each calendar year and oftener if considered necessary: Provided, however, That the Federal Reserve Board may authorize examination by the State authorities to be accepted in the case of State banks and trust companies and may at any time direct the holding of a special examination of State banks or trust companies that are stockholders in any Federal reserve bank. The examiner making the examination of any national bank, or of any other member bank, shall have power to make a thorough examination of all the affairs of the bank and in doing so he shall have power to administer oaths and to examine any of the officers and agents thereof under oath and shall make a full and detailed report of the condition of said bank to the Comptroller of the Currency.

The Federal Reserve Board, upon the recommendation of the Comptroller of the Currency, shall fix the salaries of all bank examiners and make report thereof to Congress. The expense of the examinations herein provided for shall be assessed by the Comptroller of the Currency upon the banks examined in proportion to assets or resources held by the banks upon the dates of examination of the various banks.

In addition to the examinations made and conducted by the Comptroller of the Currency, every Federal reserve bank may, with the approval of the Federal reserve agent or the Federal Reserve Board, provide for special examination of member banks within its district. The expense of such examinations shall be borne by the bank examined. Such examinations shall be so conducted as to inform the Federal reserve bank of the condition of its member banks and of the lines of credit which are being extended by them. Every Federal reserve bank shall at all times furnish to the Federal Reserve Board such information as may be demanded concerning the condition of any member bank within the district of the said Federal reserve bank.

No bank shall be subject to any visitatorial powers other than such as are authorized by law, or vested in the courts of justice or such as shall be or shall have been exercised or directed by Congress, or by either House thereof or by any committee of Congress or of either House duly authorized.

The Federal Reserve Board shall, at least once each year, order an examination of each Federal reserve bank, and upon joint application of ten member banks the Federal Reserve Board shall order a special examination and report on the condition of any Federal reserve bank.

Sec. 22. No member bank or any officer, director, or employee thereof shall hereafter make any loan or grant any gratuity to any bank examiner. Any bank officer, director, or employee violating this provision shall be deemed guilty of a misdemeanor and shall be imprisoned not exceeding one year or fined not more than $5,000, or both; and may be fined a further sum equal to the money so loaned or gratuity given. Any examiner accepting a loan or gratuity from any bank examined by him or from an officer, director, or employee thereof shall be deemed guilty of a misdemeanor and shall be imprisoned not exceeding one year or fined not more than $5,000, or both; and may be fined a further sum equal to the money so loaned or gratuity given; and shall forever thereafter be disqualified from holding office as a national-bank examiner. No national-bank examiner shall perform any other service for compensation while holding such office for any bank or officer, director, or employee thereof.

[1] *"Other than the usual salary or director's fee paid to any officer, director, employee, or attorney of a member bank, and other than a reasonable fee paid by said bank to such officer, director, employee, or attorney for services rendered to such bank, no officer, director, employee, or attorney of a member bank shall*

[1] As amended June 21, 1917.

be a beneficiary of or receive, directly or indirectly, any fee, commission, gift, or other consideration for or in connection with any transaction or business of the bank: Provided, however, That nothing in this Act contained shall be construed to prohibit a director, officer, employee, or attorney from receiving the same rate of interest paid to other depositors for similar deposits made with such bank: And provided further, That notes, drafts, bills of exchange, or other evidences of debt executed or indorsed by directors or attorneys of a member bank may be discounted with such member bank on the same terms and conditions as other notes, drafts, bills of exchange, or evidences of debt upon the affirmative vote or written assent of at least a majority of the members of the board of directors of such member bank." No examiner, public or private, shall disclose the names of borrowers or the collateral for loans of a member bank to other than the proper officers of such bank without first having obtained the express permission in writing from the Comptroller of the Currency, or from the board of directors of such bank, except when ordered to do so by a court of competent jurisdiction, or by direction of the Congress of the United States, or of either House thereof, or any committee of Congress or of either House duly authorized. Any person violating any provision of this section shall be punished by a fine of not exceeding $5,000 or by imprisonment not exceeding one year, or both.

Except as provided in existing laws, this provision shall not take effect until sixty days after the passage of this Act.

Sec. 23. The stockholders of every national banking association shall be held individually responsible for all contracts, debts, and engagements of such association, each to the amount of his stock therein, at the par value thereof in addition to the amount invested in such stock. The stockholders in any national banking association who shall have transferred their shares or registered the transfer thereof within sixty days next before the date of the failure of such association to meet its obligations, or with knowledge of such impending failure, shall be liable to the same extent as if they had made no such transfer, to the extent that the subsequent transferee fails to meet such liability; but this provision shall not be construed to affect in any way any recourse which such shareholders might otherwise have against those in whose names such shares are registered at the time of such failure.

Loans on Farm Lands

"Sec. 24.[1] *Any national banking association not situated in a central reserve city may make loans secured by improved and unencumbered farm land situated within its Federal reserve district or within a radius of one hundred miles of the place in which such bank is located, irrespective of district lines, and may also make loans secured by improved and unencumbered real estate located within one hundred miles of the place in which such bank is located, irrespective of district lines; but no loan made upon the security of such farm land shall be made for a longer time than five years, and no loan made upon the security of such real estate as distinguished from farm land shall be made for a longer time than one year nor shall the amount of any such loan, whether upon such farm land or upon such real estate, exceed fifty per centum of the actual value of the property offered as security. Any such bank may make such loans, whether secured by such farm land or such real estate, in an aggregate sum equal to twenty-five per centum of its capital and surplus or to one-third of its time deposits and such banks may continue hereafter as heretofore to receive time deposits and to pay interest on the same.*

"The Federal Reserve Board shall have power from time to time to add to the list of cities in which national banks shall not be permitted to make loans secured upon real estate in the manner described in this section."

"Sec. 25.[1] *Any national banking association possessing a capital and surplus of $1,000,000 or more may file application with the Federal Reserve Board for permission to exercise, upon such conditions and under such regulations as may be prescribed by the said board, either or both of the following powers:*

"First. To establish branches in foreign countries or dependencies or insular possessions of the United States for the furtherance of the foreign commerce of the United States, and to act if required to do so as fiscal agents of the United States.

"Second. To invest an amount not exceeding in the aggregate ten per centum of its paid-in capital stock and surplus in the stock of one or more banks or corporations chartered or incorporated under the laws of the United States or of any State thereof, and principally engaged in international or foreign banking, or banking in a dependency or insular possession of the United States either directly or through the agency, ownership,

[1] As amended September 7, 1916.

or control of local institutions in foreign countries, or in such dependencies or insular possessions.

"Such application shall specify the name and capital of the banking association filing it, the powers applied for, and the place or places where the banking operations proposed are to be carried on. The Federal Reserve Board shall have power to approve or to reject such application in whole or in part if for any reason the granting of such application is deemed inexpedient, and shall also have power from time to time to increase or decrease the number of places where such banking operations may be carried on.

"Every national banking association operating foreign branches shall be required to furnish information concerning the condition of such branches to the Comptroller of the Currency upon demand, and every member bank investing in the capital stock of banks or corporations described under sub-paragraph two of the first paragraph of this section shall be required to furnish information concerning the condition of such banks or corporations to the Federal Reserve Board upon demand, and the Federal Reserve Board may order special examinations of the said branches, banks, or corporations at such time or times as it may deem best.

"Before any national bank shall be permitted to purchase stock in any such corporation the said corporation shall enter into an agreement or undertaking with the Federal Reserve Board to restrict its operations or conduct its business in such manner or under such limitations and restrictions as the said board may prescribe for the place or places wherein such business is to be conducted. If at any time the Federal Reserve Board shall ascertain that the regulations prescribed by it are not being complied with, said board is hereby authorized and empowered to institute an investigation of the matter and to send for persons and papers, subpoena witnesses, and administer oaths in order to satisfy itself as to the actual nature of the transactions referred to. Should such investigation result in establishing the failure of the corporation in question, or of the national bank or banks which may be stockholders therein, to comply with the regulations laid down by the said Federal Reserve Board, such national banks may be required to dispose of stock holdings in the said corporation upon reasonable notice.

"Every such national banking association shall conduct the accounts of each foreign branch independently of the accounts of other foreign branches established by it and of its home office, and shall at the end of each fiscal period transfer to its

general ledger the profit or loss accrued at each branch as a separate item.

"Any director or other officer, agent, or employee of any member bank may, with the approval of the Federal Reserve Board, be a director or other officer, agent, or employee of any such bank or corporation above mentioned in the capital stock of which such member bank shall have invested as hereinbefore provided, without being subject to the provisions of section eight of the Act approved October fifteenth, nineteen hundred and fourteen, entitled 'An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes.'"

Sec. 26. All provisions of law inconsistent with or superseded by any of the provisions of this Act are to that extent and to that extent only hereby repealed: Provided, Nothing in this Act contained shall be construed to repeal the parity provision or provisions contained in an Act approved March fourteenth, nineteen hundred, entitled "An Act to define and fix the standard of value, to maintain the parity of all forms of money issued or coined by the United States, to refund the public debt, and for other purposes," and the Secretary of the Treasury may for the purpose of maintaining such parity and to strengthen the gold reserve, borrow gold on the security of United States bonds authorized by section two of the Act last referred to or for one-year gold notes bearing interest at a rate of not to exceed three per centum per annum, or sell the same if necessary to obtain gold. When the funds of the Treasury on hand justify, he may purchase and retire such outstanding bonds and notes.

"Sec. 27.[1] *The provisions of the Act of May thirtieth, nineteen hundred and eight, authorizing national currency associations, the issue of additional national-bank circulation, and creating a National Monetary Commission, which expires by limitation under the terms of such Act on the thirtieth day of June, nineteen hundred and fourteen, are hereby extended to June thirtieth, nineteen hundred and fifteen, and sections fifty-one hundred and fifty-three, fifty-one hundred and seventy-two, fifty-one hundred and ninety-one, and fifty-two hundred and fourteen of the Revised Statutes of the United States, which were amended by the Act of May thirtieth, nineteen hundred and eight, are hereby reënacted to read as such sections read prior to May thirtieth, nineteen hundred and eight, subject to such amendments or modifications as are prescribed in this Act: Provided, however, That section nine of the Act first referred to in this section is*

[1] As amended August 4, 1914. Public—No. 163—63d Congress. [S. 6192.]

hereby amended so as to change the tax rates fixed in said Act by making the portion applicable thereto read as follows:

"National banking associations having circulating notes secured otherwise than by bonds of the United States, shall pay for the first three months a tax at the rate of three per centum per annum upon the average amount of such of their notes in circulation as are based upon the deposit of such securities, and afterwards an additional tax rate of one-half of one per centum per annum for each month until a tax of six per centum per annum is reached, and thereafter such tax of six per centum per annum upon the average amount of such notes: Provided further, That whenever in his judgment he may deem it desirable, the Secretary of the Treasury shall have power to suspend the limitations imposed by section one and section three of the Act referred to in this section, which prescribe that such additional circulation secured otherwise than by bonds of the United States shall be issued only to National banks having circulating notes outstanding secured by the deposit of bonds of the United States to an amount not less than forty per centum of the capital stock of such banks, and to suspend also the conditions and limitations of section five of said Act except that no bank shall be permitted to issue circulating notes in excess of one hundred and twenty-five per centum of its unimpaired capital and surplus. He shall require each bank and currency association to maintain on deposit in the Treasury of the United States a sum in gold sufficient in his judgment for the redemption of such notes, but in no event less than five per centum. He may permit National banks, during the period for which such provisions are suspended, to issue additional circulation under the terms and conditions of the Act referred to as herein amended: Provided further, That the Secretary of the Treasury, in his discretion, is further authorized to extend the benefits of this Act to all qualified State banks and trust companies, which have joined the Federal reserve system, or which may contract to join within fifteen days after the passage of this Act."

Sec. 28. Section fifty-one hundred and forty-three of the Revised Statutes is hereby amended and reënacted to read as follows: Any association formed under this title may, by the vote of shareholders owning two-thirds of its capital stock, reduce its capital to any sum not below the amount required by this title to authorize the formation of associations; but no such reduction shall be allowable which will reduce the capital of the association below the amount required for its outstanding circulation, nor shall any reduction be made until the amount of the proposed

reduction has been reported to the Comptroller of the Currency and such reduction has been approved by the said Comptroller of the Currency and by the Federal Reserve Board, or by the organization committee pending the organization of the Federal Reserve Board.

Sec. 29. If any clause, sentence, paragraph, or part of this Act shall for any reason be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder of this Act, but shall be confined in its operation to the clause, sentence, paragraph, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

Sec. 30. The right to amend, alter, or repeal this Act is hereby expressly reserved.

APPENDIX B

REGULATIONS OF THE FEDERAL RESERVE BOARD

REGULATION A, SERIES OF 1917

(Superseding Regulation A of 1916)

REDISCOUNTS UNDER SECTION 13

A. NOTES, DRAFTS, AND BILLS OF EXCHANGE

I. General statutory provisions

Any Federal Reserve Bank may discount for any of its member banks any note, draft, or bill of exchange provided—

(*a*) It has a maturity at the time of discount of not more than 90 days, exclusive of days of grace; but if drawn or issued for agricultural purposes or based on live stock, it may have a maturity at the time of discount of not more than six months, exclusive of days of grace.

(*b*) It arose out of actual commercial transactions; that is, it must be a note, draft, or bill of exchange which has been issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used or are to be used for such purposes.

(*c*) It was not issued for carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States.

(*d*) The aggregate of notes, drafts, and bills bearing the signature or indorsement of any one borrower, whether a person, company, firm, or corporation rediscounted for any one member bank shall at no time exceed 10 per cent of the unimpaired capital and surplus of such bank; but this restriction shall not apply to the discount of bills of exchange drawn in good faith against actually existing values.

(*e*) It is indorsed by a member bank.

(*f*) It conforms to all applicable provisions of this regulation.

II. *General character of notes, drafts, and bills of exchange eligible*

The Federal Reserve Board, exercising its statutory right to define the character of a note, draft, or bill of exchange eligible for rediscount at a Federal Reserve Bank, has determined that—

(*a*) It must be a note, draft, or bill of exchange the proceeds of which have been used or are to be used in producing, purchasing, carrying, or marketing goods[1] in one or more of the steps of the process of production, manufacture, or distribution.

(*b*) It must not be a note, draft, or bill of exchange the proceeds of which have been used or are to be used for permanent or fixed investments of any kind, such as land, buildings, or machinery.

(*c*) It must not be a note, draft, or bill of exchange the proceeds of which have been used or are to be used for investments of a purely speculative character.

(*d*) It may be secured by the pledge of goods or collateral provided it is otherwise eligible.

III. *Applications for rediscount*

All applications for the rediscount of notes, drafts, or bills of exchange must contain a certificate of the member bank, in form to be prescribed by the Federal Reserve Bank, that, to the best of its knowledge and belief, such notes, drafts, or bills of exchange have been issued for one or more of the purposes mentioned in II (*a*).

IV. *Promissory notes.*

(*a*) *Definition.*—A promissory note, within the meaning of this regulation, is defined as an unconditional promise, in writing, signed by the maker, to pay, in the United States, at a fixed or determinable future time, a sum certain in dollars to order or to bearer.

(*b*) *Evidence of eligibility and requirement of statements.*—A Federal Reserve Bank must be satisfied by reference to the note or otherwise that it is eligible for rediscount. Compliance of a note with II (*b*) may be evidenced by a statement of the borrower showing a reasonable excess of quick assets over current liabilities. The member bank shall certify in its application whether the note offered for rediscount has been discounted for

[1] When used in this regulation the word "goods" shall be construed to include goods, wares, merchandise, or agricultural products, including live stock.

a depositor or another member bank or whether it has been purchased from a non-depositor. It must also certify whether a financial statement of the borrower is on file.

Such financial statements must be on file with respect to all notes offered for rediscount which have been purchased from sources other than a depositor or a member bank. With respect to any other note offered for rediscount, if no statement is on file, a Federal Reserve Bank shall use its discretion in taking the steps necessary to satisfy itself as to eligibility. It is authorized to waive the requirement of a statement with respect to any note discounted by a member bank for a depositor or another member bank:

(1) If it is secured by a warehouse, terminal, or other similar receipt covering goods in storage;

(2) If the aggregate of obligations of the borrower rediscounted and offered for rediscount at the Federal Reserve Bank is less than a sum equal to 10 per cent of the paid-in capital of the member bank and does not exceed $5,000.

V. *Drafts, bills of exchange, and trade acceptances*

(*a*) *Definition.*—A draft or bill of exchange, within the meaning of this regulation, is defined as an unconditional order in writing, addressed by one person to another other than a banker as defined under B (*b*), signed by the person giving it, requiring the person to whom it is addressed to pay, in the United States, at a fixed or determinable future time, a sum certain in dollars to the order of a specified person; and a trade acceptance is defined as a draft or bill of exchange drawn by the seller on the purchaser of goods sold and accepted by such purchaser.

(*b*) *Evidence of eligibility.*—A Federal Reserve Bank shall take such steps as it deems necessary to satisfy itself as to the eligibility of the draft or bill offered for rediscount, unless it presents prima facie evidence thereof or bears a stamp or certificate affixed by the acceptor or drawer showing that it is a trade acceptance.

VI. *Six months' agricultural paper*

(*a*) *Definition.*—Six months' agricultural paper, within the meaning of this regulation, is defined as a note, draft, bill of exchange, or trade acceptance drawn or issued for agricultural purposes, or based on live stock; that is, a note, draft, bill of exchange, or trade acceptance the proceeds of which have been used, or are to be used, for agricultural purposes, including the

breeding, raising, fattening, or marketing of live stock, and which has a maturity at the time of discount of not more than six months, exclusive of days of grace.

(*b*) *Eligibility.*—To be eligible for rediscount, six months' agricultural paper, whether a note, draft, bill of exchange, or trade acceptance, must comply with the respective sections of this regulation which would apply to it if its maturity were 90 days or less.

VII. *Commodity paper*

(*a*) *Definition.*—Commodity paper within the meaning of this regulation is defined as a note, draft, bill of exchange, or trade acceptance accompanied and secured by shipping documents or by a warehouse, terminal, or other similar receipt covering approved and readily marketable, non-perishable staples, properly insured.

(*b*) *Eligibility.*—To be eligible for rediscount at the special rates authorized to be established for commodity paper; such a note, draft, bill of exchange, or trade acceptance must also comply with the respective sections of this regulation applicable to it, must conform to the requirements of the Federal Reserve Bank relating to shipping documents, receipts, insurance, etc., and must be a note, draft, bill of exchange, or trade acceptance on which the rate of interest or discount—including commission—charged the maker does not exceed 6 per cent per annum.

(*c*) *Suspension of commodity rate.*—As the special rate on commodity paper is intended to assist actual producers during crop-moving periods and is not designed to benefit speculators, the Board reserves the right to suspend the special rates herein provided whenever it is apparent that the movement of crops, which this rate is intended to facilitate, has been practically completed.

B. BANKERS' ACCEPTANCES

(*a*) *General statutory provisions.*—Any Federal Reserve Bank may discount for any of its member banks bankers' acceptances which have a maturity at the time of discount of not more than three months' sight, exclusive of days of grace, which are indorsed by at least one member bank and which grow out of transactions involving the importation or exportation of goods; or, which grow out of transactions involving the domestic shipment of goods, provided shipping documents are attached at the time of acceptance; or, which are secured at the time of acceptance by

a warehouse receipt or other such document conveying or securing title covering readily marketable staples. Any Federal Reserve Bank may also acquire drafts or bills of exchange drawn on member banks by banks or bankers in foreign countries or dependencies or insular possessions of the United States for the purpose of furnishing dollar exchange.

(*b*) *Definition.*—A banker's acceptance within the meaning of this regulation is defined as a draft or bill of exchange of which the acceptor is a bank or trust company, or a firm, person, company, or corporation engaged in the business of granting bankers' acceptance credits.

(*c*) *Eligibility.*—To be eligible for rediscount the bill must have been drawn under a credit opened for the purpose of conducting, or settling accounts resulting from, a transaction or transactions involving (1) the shipment of goods between the United States and any foreign country, or between the United States and any of its dependencies or insular possessions, or between foreign countries, or (2) the domestic shipment of goods, provided shipping documents are attached at the time of acceptance; or it must be a bill which is secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title covering readily marketable staples. Any Federal Reserve Bank may also acquire drafts or bills drawn by a bank or banker in a foreign country or dependency or insular possession of the United States for the purpose of furnishing dollar exchange and accepted by a member bank in accordance with the provisions of Regulation C. Such drafts or bills may be acquired prior to acceptance provided they have the indorsement of a member bank.

(*d*) *Evidence of eligibility.*—A Federal Reserve Bank must be satisfied, either by reference to the acceptance itself or otherwise, that it is eligible for rediscount. Satisfactory evidence of eligibility may consist of a stamp or certificate affixed by the acceptor in form satisfactory to the Federal Reserve Bank.

REGULATION B, SERIES OF 1917

(Superseding Regulation B of 1916)

Open-Market Purchases of Bills of Exchange, Trade Acceptances, and Bankers' Acceptances Under Section 14

I. *General statutory provisions*

Section 14 of the Federal Reserve Act permits Federal Reserve Banks under rules and regulations to be prescribed by the Federal

Reserve Board to purchase and sell in the open market from banks, firms, corporations, or individuals, bankers' acceptances and bills of exchange of the kinds and maturities made eligible by the Act for rediscount, with or without the indorsement of a member bank.

II. *General character of bills and acceptances eligible*

The Federal Reserve Board, exercising its statutory right to regulate the purchase of bills of exchange and acceptances, has determined that a bill of exchange or acceptance, to be eligible for purchase by Federal Reserve Banks under section 14—

(*a*) Must not have been issued for carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States.

(*b*) Must not be a bill the proceeds of which have been used or are to be used for permanent or fixed investments of any kind, such as land, buildings, or machinery, or for investments of a merely speculative character.

(*c*) Must have been accepted by the drawee prior to purchase by a Federal Reserve Bank unless it is accompanied and secured by shipping documents or by a warehouse, terminal, or other similar receipt conveying security title.

(*d*) May be secured by the pledge of goods [1] or collateral, provided it is otherwise eligible.

In addition to the above general requirements, each bill of exchange and trade acceptance purchased under the terms of this regulation must also conform to the more specific requirements set forth under III, and each banker's acceptance must also conform to the more specific requirements set forth under IV.

III. *Bills of exchange and trade acceptances*

(*a*) *Definition.*—A bill of exchange, within the meaning of this regulation, is defined as an unconditional order in writing, addressed by one person to another, other than a banker as defined under IV (*a*), signed by the person giving it, requiring the person to whom it is addressed to pay, in the United States, at a fixed or determinable future time, a sum certain in dollars to the order of a specified person; and a trade acceptance is defined as a bill of exchange drawn by the seller on the purchaser of goods sold, and accepted by such purchaser.

(*b*) *Eligibility.*—To be eligible for purchase the bill must have

[1] When used in this regulation the word "goods" shall be construed to include goods, wares, merchandise, or agricultural products, including live stock.

arisen out of an actual commercial transaction, domestic or foreign; that is, it must be a bill which has been issued or drawn for agricultural, industrial, or commercial purposes or the proceeds of which have been used or are to be used for the purposes of producing, purchasing, carrying, or marketing goods in one or more of the steps of the process of production, manufacture, or distribution. It must have a maturity at time of purchase of not more than 90 days, exclusive of days of grace.

(c) *Evidence of eligibility.*—A Federal Reserve Bank shall take such steps as it deems necessary to satisfy itself as to the eligibility of the bill offered for purchase, unless it presents prima facie evidence thereof or bears a stamp or certificate affixed by the acceptor or drawer showing that it is a trade acceptance.

(d) *Statements.*—Unless indorsed by a member bank, a bill is not eligible for purchase until a satisfactory statement has been furnished of the financial condition of one or more of the parties thereto.

IV. *Bankers' acceptances*

(a) *Definition.*—A banker's acceptance, within the meaning of this regulation, is a bill of exchange of which the acceptor is a bank or trust company, or a firm, person, company, or corporation engaged in the business of granting bankers' acceptance credits.

(b) *Eligibility.*—To be eligible for purchase, the bill which must have a maturity at time of purchase of not more than three months, exclusive of days of grace, must have been drawn under a credit opened for the purpose of conducting, or settling accounts resulting from, a transaction or transactions involving—

(1) The shipment of goods between the United States and any foreign country, or between the United States and any of its dependencies or insular possessions, or between foreign countries, or

(2) The shipment of goods within the United States, provided the bill at the time of its acceptance is accompanied by shipping documents, or

(3) The storage within the United States of readily marketable goods, provided the acceptor of the bill is secured by warehouse, terminal, or other similar receipt, or

(4) The storage within the United States of goods which have been actually sold, provided the acceptor of the bill is secured by the pledge of such goods;

or it must be a bill drawn by a bank or banker in a foreign country or dependency or insular possession of the United States

for the purpose of furnishing dollar exchange. In this latter case the bank or banker drawing the bill must be in a country, dependency, or possession whose usages of trade have been determined by the Federal Reserve Board to require the drawing of bills of this character.

(*c*) *Evidence of eligibility.*—A Federal Reserve Bank must be satisfied either by reference to the acceptance itself, or otherwise, that it is eligible for purchase. Satisfactory evidence of eligibility may consist of a stamp or certificate affixed by the acceptor, in form satisfactory to the Federal Reserve Bank. No evidence of eligibility is required with respect to a bill accepted by a national bank.

(*d*) *Statements.*—Bankers' acceptances, other than those accepted or indorsed by member banks, shall be eligible for purchase only after the acceptor has furnished a satisfactory statement of financial condition in form to be approved by the Federal Reserve Board and has agreed in writing with a Federal Reserve Bank to inform it upon request concerning the transactions underlying such acceptances.

REGULATION C, SERIES OF 1917

(Superseding Regulation C of 1916)

Acceptance by Member Banks of Drafts and Bills of Exchange

A. ACCEPTANCE OF DRAFTS OR BILLS OF EXCHANGE DRAWN AGAINST DOMESTIC OR FOREIGN SHIPMENTS OF GOODS OR SECURED BY WAREHOUSE RECEIPTS COVERING READILY MARKETABLE STAPLES

I. *Statutory provisions*

Under the provisions of the fifth paragraph of section 13 of the Federal Reserve Act, as amended by the acts of September 7, 1916, and June 21, 1917, any member bank may accept drafts or bills of exchange drawn upon it, having not more than six months' sight to run, exclusive of days of grace, which grow out of transactions involving the importation or exportation of goods; or which grow out of transactions involving the domestic shipment of goods, provided shipping documents conveying or securing title are attached at the time of acceptance; or which are secured at the time of acceptance by a warehouse receipt or other such document conveying or securing title covering readily marketable staples. This paragraph limits the amount which any

bank shall accept for any one person, company, firm, or corporation, whether in a foreign or domestic transaction, to an amount not exceeding at any time, in the aggregate, more than 10 per cent of its paid-up and unimpaired capital stock and surplus. This limit, however, does not apply in any case where the accepting bank is secured either by attached documents or by some other actual security growing out of the same transaction as the acceptance. The law also provides that any bank may accept such bills up to an amount not exceeding at any time, in the aggregate, more than one-half of its paid-up and unimpaired capital stock and surplus; or, with the approval of the Federal Reserve Board, up to an amount not exceeding at any time, in the aggregate, more than 100 per cent of its paid-up and unimpaired capital stock and surplus. In no event, however, shall the aggregate amount of acceptances growing out of domestic transactions exceed 50 per cent of such capital stock and surplus.

II. *Regulations*

(1) Under the provisions of the law referred to above the Federal Reserve Board has determined that any member bank, having an unimpaired surplus equal to at least 20 per cent of its paid-up capital, which desires to accept drafts or bills of exchange drawn for the purposes described above, up to an amount not exceeding at any time, in the aggregate, 100 per cent of its paid-up and unimpaired capital stock and surplus, may file an application for that purpose with the Federal Reserve Board. Such application must be forwarded through the Federal Reserve Board. Such application must be forwarded through the Federal Reserve Bank of the district in which the applying bank is located.

(2) The Federal Reserve Bank shall report to the Federal Reserve Board upon the standing of the applying bank, stating whether the business and banking conditions prevailing in its district warrant the granting of such applications.

(3) The approval of any such application may be rescinded upon 90 days' notice to the bank affected.

B. ACCEPTANCE OF DRAFTS OR BILLS OF EXCHANGE DRAWN FOR THE PURPOSE OF CREATING DOLLAR EXCHANGE

I. *Statutory provisions*

Section 13 of the Federal Reserve Act also provides that any member bank may accept drafts or bills of exchange drawn

upon it having not more than three months' sight to run, exclusive of days of grace, drawn, under regulations to be prescribed by the Federal Reserve Board, by banks or bankers in foreign countries or dependencies or insular possessions of the United States for the purpose of furnishing dollar exchange as required by the usages of trade in the respective countries, dependencies, or insular possessions.

No member bank shall accept such drafts or bills of exchange for any one bank to an amount exceeding in the aggregate 10 per centum of the paid-up and unimpaired capital and surplus of the accepting bank unless the draft or bill of exchange is accompanied by documents conveying or securing title or by some other adequate security. No member bank shall accept such drafts or bills in an amount exceeding at any time in the aggregate one-half of its paid-up and unimpaired capital and surplus. This 50 per cent limit is separate and distinct from and not included in the limits placed upon the acceptance of drafts and bills of exchange as described under section A of this regulation.

II. *Regulations*

Any member bank desiring to accept drafts drawn by banks or bankers in foreign countries or dependencies or insular possessions of the United States for the purpose of furnishing dollar exchange shall first make an application to the Federal Reserve Board setting forth the usages of trade in the respective countries, dependencies, or insular possessions in which such banks or bankers are located.

If the Federal Reserve Board should determine that the usages of trade in such countries, dependencies, or possessions require the granting of the acceptance facilities applied for, it will notify the applying bank of its approval and will also publish in the *Federal Reserve Bulletin* the name or names of those countries, dependencies, or possessions in which banks or bankers are authorized to draw on member banks whose applications have been approved for the purpose of furnishing dollar exchange.

The Federal Reserve Board reserves the right to modify or on 90 days' notice to revoke its approval either as to any particular member bank or as to any foreign country or dependency or insular possession of the United States in which it has authorized banks or bankers to draw on member banks for the purpose of furnishing dollar exchange.

REGULATION D, SERIES OF 1917

(Superseding Regulation D of 1916)

TIME DEPOSITS AND SAVINGS ACCOUNTS

Section 19 of the Federal Reserve Act provides, in part, as follows:

> Demand deposits, within the meaning of this act, shall comprise all deposits payable within 30 days, and time deposits shall comprise all deposits payable after 30 days, and all savings accounts and certificates of deposit which are subject to not less than 30 days' notice before payment, and all postal savings deposits.

Time deposits, open accounts

The term "time deposits, open accounts" shall be held to include all accounts, not evidenced by certificates of deposit or savings pass books, in respect to which a written contract is entered into with the depositor at the time the deposit is made that neither the whole nor any part of such deposit may be withdrawn by check or otherwise, except on a given date or on written notice given by the depositor a certain specified number of days in advance, in no case less than 30 days.

Savings accounts

The term "savings accounts" shall be held to include those accounts of the bank in respect to which, by its printed regulations, accepted by the depositor at the time the account is opened—

(*a*) The pass book, certificate, or other similar form of receipt, must be presented to the bank whenever a deposit or withdrawal is made, and

(*b*) The depositor may at any time be required by the bank to give notice of an intended withdrawal not less than 30 days before a withdrawal is made.

Time certificates of deposit

A "time certificate of deposit" is defined as an instrument evidencing the deposit with a bank, either with or without interest, of a certain sum specified on the face of the certificate payable in whole or in part to the depositor or on his order—

(*a*) On a certain date, specified on the certificate, not less than 30 days after the date of the deposit. or

(*b*) After the lapse of a certain specified time subsequent to the date of the certificate, in no case less than 30 days, or

(*c*) Upon written notice given a certain specified number of days, not less than 30 days before the date of repayment, and

(*d*) In all cases only upon presentation of the certificate at each withdrawal for proper indorsement or surrender.

REGULATION E, SERIES OF 1917

(Superseding Regulation E of 1916)

PURCHASE OF WARRANTS

Statutory requirements

Section 14 of the Federal Reserve Act reads in part as follows:

> Every Federal Reserve Bank shall have power—
>
> (*b*) To buy and sell, at home or abroad, bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months, issued in anticipation of the collection of taxes or in anticipation of the receipt of assured revenues by any State, county, district, political subdivision, or municipality in the continental United States, including irrigation, drainage, and reclamation districts, such purchases to be made in accordance with rules and regulations prescribed by the Federal Reserve Board.

For brevity's sake, the term "warrant" when used in this regulation shall be construed to mean "bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months," and the term "municipality" shall be construed to mean "State, county, district, political subdivision, or municipality in the continental United States, including irrigation, drainage, and reclamation districts."

Regulation

I. Any Federal Reserve Bank may purchase warrants issued by a municipality in anticipation of the collection of taxes or in anticipation of the receipt of assured revenues, provided—

(*a*) They are the general obligations of the entire municipality; it being intended to exclude as ineligible for purchase all such obligations as are payable from "local benefit" and "special assessment" taxes when the municipality at large is not directly or ultimately liable;

(*b*) They are issued in anticipation of taxes or revenues which are due and payable on or before the date of maturity of such

warrants; but the Federal Reserve Board may waive this condition in specific cases. For the purposes of this regulation, taxes shall be considered as due and payable on the last day on which they may be paid without penalty;

(c) They are issued by a municipality—

(1) Which has been in existence[1] for a period of 10 years;

(2) Which for a period of 10 years previous to the purchase has not defaulted[1] for longer than 15 years in the payment of any part of either principal or interest of any funded debt authorized to be contracted by it;

(3) Whose net funded indebtedness[1] does not exceed 10 per centum of the valuation of its taxable property, to be ascertained by the last preceding valuation of property or the assessment of taxes.

II. Except with the approval of the Federal Reserve Board, no Federal Reserve Bank shall purchase and hold an amount in excess of 25 per centum of the total amount of warrants outstanding at any time and issued in conformity with provisions of section 14 (b) above quoted, and actually sold by a municipality.

III. Except with the approval of the Federal Reserve Board, the aggregate amount invested by any Federal Reserve Bank in warrants of all kinds shall not exceed at the time of purchase a sum equal to 10 per centum of the deposits kept by its member banks with such Federal Reserve Bank.

IV. Except with the approval of the Federal Reserve Board, the maximum amount which may be invested at the time of purchase by any Federal Reserve Bank in warrants of any single municipality shall be limited to the following percentages of the deposits kept in such Federal Reserve Bank by its member banks:

Five per centum of such deposits in warrants of a municipality of 50,000 population or over;

Three per centum of such deposits in warrants of a municipality of over 30,000 population, but less than 50,000;

One per centum of such deposits in warrants of a municipality of over 10,000 population, but less than 30,000.

V. Warrants of a municipality of 10,000 population or less shall be purchased only with the special approval of the Board.

The population of a muhicipality shall be determined by the last Federal or State census. Where it cannot be exactly determined the Board will make special rulings.

VI. Opinion of recognized counsel on municipal issues or of the regularly appointed counsel of the municipality as to the

[1] See Appendix to this regulation.

legality of the issue shall be secured and approved in each case by counsel for the Federal Reserve Bank.

VII. Any Federal Reserve Bank may purchase from any of its member banks warrants of any municipality, indorsed by such member bank, with waiver of demand, notice, and protest, up to an amount not to exceed 10 per centum of the aggregate capital and surplus of such member bank: *Provided, however*, That such warrants comply with provisions I and III of these regulations, except that where a period of 10 years is mentioned in I (*c*) hereof a period of 5 years shall be substituted for the purposes of this clause.

Appendix to Regulation E

"Net Funded Indebtedness"

The term "net funded indebtedness" is hereby defined to mean the legal gross indebtedness of the municipality (including the amount of any school district or other bonds which depend for their redemption upon taxes levied upon property within the municipality) less the aggregate of the following items:

(1) The amount of outstanding bonds or other debt-obligations made payable from current revenues;

(2) The amount of outstanding bonds issued for the purpose of providing the inhabitants of a municipality with public utilities, such as waterworks, docks, electric plants, transportation facilities, etc.: *Provided*, That evidence is submitted showing that the income from such utilities is sufficient for maintenance, for payment of interest on such bonds, and for accumulation of a sinking fund for their redemption;

(3) The amount of outstanding improvement bonds, issued under laws which provide for the levying of special assessments against abutting property in amounts sufficient to insure the payment of interest on the bonds and the redemption thereof: *Provided*, That such bonds are direct obligations of the municipality and included in the gross indebtedness of the municipality;

(4) The total of all sinking funds accumulated for the redemption of the gross indebtedness of the municipality, except sinking funds applicable to bonds just described in (1), (2), and (3) above.

"Existence" and "Non-Default"

Warrants will be construed to comply with that part of I (*c*) of Regulation E relative to term of existence and non-default under the following conditions:

(1) Warrants issued by or in behalf of any municipality which was, subsequent to the issuance of such warrants, consolidated with or merged into an existing political division which meets the requirements of these regulations, will be deemed to be the warrants of such political division: *Provided,* That such warrants were assumed by such political division under statutes and appropriate proceedings the effect of which is to make such warrants general obligations of such assuming political division and payable, either directly or ultimately, without limitation to a special fund from the proceeds of taxes levied upon all the taxable real and personal property within its territorial limits.

(2) Warrants issued by or in behalf of any municipality which was, subsequent to the issuance of such warrants, wholly succeeded by a newly organized political division whose term of existence, added to that of such original political division or of any other political division so succeeded, is equal to a period of 10 years will be deemed to be warrants of such succeeding political division: *Provided,* That during such period none of such political divisions shall have defaulted for a period exceeding 15 days in the payment of any part of either principal or interest of any funded debt authorized to be contracted by it: *And provided further,* That such warrants were assumed by such new political division under statutes and appropriate proceedings the effect of which is to make such warrants general obligations of such assuming political division and payable, either directly or ultimately, without limitation to a special fund from the proceeds of taxes levied upon all the taxable real and personal property within its territorial limits.

(3) Warrants issued by or in behalf of any municipality which, prior to such issuance, became the successor of one or more, or was formed by the consolidation or merger of two or more, pre-existing political divisions, the term of existence of one or more of which, added to that of such succeeding or consolidated political division, is equal to a period of 10 years, will be deemed to be warrants of a political division which has been in existence for a period of 10 years: *Provided,* That during such period none of such original, succeeding, or consolidated political divisions shall have defaulted for a period exceeding 15 days in the payment of any part of either principal or interest of any funded debt authorized to be contracted by it.

REGULATION F, SERIES OF 1917

(Superseding Regulation F of 1916)

TRUST POWERS OF NATIONAL BANKS

I. *Statutory provisions*

The Federal Reserve Act provides:

SEC. 11. The Federal Reserve Board shall be authorized and empowered:
(*k*) To grant by special permit to national banks applying therefor, when not in contravention of State or local law, the right to act as trustee, executor, administrator, or registrar of stocks and bonds, under such rules and regulations as the said board may prescribe.

II. *Applications*

A national bank desiring to exercise any or all of the privileges authorized by section 11, subsection (*k*), of the Federal Reserve Act shall make application to the Federal Reserve Board on a form approved by said Board (Form No. 61). Such application shall be forwarded by the applying bank to the Chairman of the board of directors of the Federal Reserve Bank of its district, and shall thereupon be transmitted to the Federal Reserve Board with his recommendations.

III. *Separate departments*

Every national bank permitted to act under this section shall establish a separate trust department, and shall place such department under the management of an officer or officers, whose duties shall be prescribed by the board of directors of the bank.

IV. *Provision for keeping trust funds*

The funds, securities, and investments held in each trust shall be held separate and distinct from the general funds and securities of the bank, and separate and distinct one from another. The ledgers and other books kept for the trust department shall be entirely separate and apart from the other books and records of the bank.

V. *Examinations*

Examiners appointed by the Comptroller of the Currency or designated by the Federal Reserve Board will hereafter be instructed to make thorough and complete audits of the cash, securities, accounts, and investments of the trust department of every bank at the same time that examination is made of the banking department.

VI. *Conformity with State laws*

Nothing in these regulations shall be construed to give to a national bank doing business as trustee, executor, administrator, or registrar of stocks and bonds under section 11 (*k*) of the Federal Reserve Act any rights or privileges in contravention of the laws of the State in which the bank is located.

VII. *Revocation of permits*

The Federal Reserve Board reserves the right to revoke permits granted under these regulations in any case where in the opinion of the Board a bank has willfully violated the provisions of these regulations or the laws of any State relating to the operations of such bank when acting as trustee, executor, administrator, or register of stocks and bonds.

VIII. *Changes in rules*

These regulations are subject to change by the Federal Reserve Board; provided, however, that no such change shall prejudice obligations undertaken in good faith under regulations in effect at the time the obligation was assumed.

REGULATION G, SERIES OF 1917

(Superseding Regulation G of 1916)

Loans on Farm Land and Other Real Estate

Section 24 of the Federal Reserve Act provides in part that—

Any national banking association not situated in a central reserve city may make loans secured by improved and unencumbered farm land situated within its Federal reserve district or within a radius

of one hundred miles of the place in which such bank is located, irrespective of district lines, and may also make loans secured by improved and unencumbered real estate located within one hundred miles of the place in which such bank is located, irrespective of district lines; but no loan made upon the security of such farm land shall be made for a longer time than five years, and no loan made upon the security of such real estate as distinguished from farm land shall be made for a longer time than one year nor shall the amount of any such loan, whether upon such farm land or upon such real estate, exceed fifty per centum of the actual value of the property offered as security. Any such bank may make such loans, whether secured by such farm land or such real estate, in an aggregate sum equal to twenty-five per centum of its capital and surplus or to one-third of its time deposits and such banks may continue hereafter as heretofore to receive time deposits and to pay interest on the same.

National banks not located in central reserve cities may, therefore, legally make loans secured by improved and unencumbered farm land or other real estate as provided by this section.

Certain conditions and restrictions must, however, be observed—

(*a*) There must be no prior lien on the land; that is, the lending bank must hold an absolute first mortgage or deed of trust.

(*b*) The amount of the loan must not exceed 50 per cent of the actual value of the land by which it is secured.

(*c*) The maximum amount of loans which a national bank may make on real estate, whether on farm land or on other real estate as distinguished from farm land, is limited under the terms of the act to an amount not in excess of one-third of its time deposits at the time of the making of the loan, and not in excess of one-third of its average time deposits during the preceding calendar year: *Provided, however,* That if one-third of such time deposits as of the date of making the loan or one-third of the average time deposits for the preceding calendar year, is less than one-fourth of the capital and surplus of the bank as of the date of making the loan, the bank in such event shall have authority to make loans upon real estate under the terms of the act to the extent of one-fourth of the bank's capital and surplus as of that date.

(*d*) Farm land to be eligible as security for a loan by a national bank must be situated within the Federal Reserve District in which such bank is located or within a radius of 100 miles of such bank irrespective of district lines.

(*e*) Real estate as distinguished from farm land to be eligible as security for a loan by a national bank must be located within a radius of 100 miles of such bank irrespective of district lines.

(*f*) The right of a national bank to "make loans" under section 24 includes the right to purchase or discount loans already made as well as the right to make such loans in the first instance: *Provided, however,* That no loan secured by farm land shall have a maturity of more than five years from the date on which it was purchased or made by the national bank and that no loan secured by other real estate shall have a maturity of more than one year from such date.

(*g*) Though no national bank is authorized under the provisions of section 24 to make a loan on the security of real estate, other than farm land, for a period exceeding one year, nevertheless, at the end of the year it may properly make a new loan upon the same security for a period not exceeding one year. The maturing note must be canceled and a new note taken in its place, but in order to obviate the necessity of making a new mortgage or deed of trust for each renewal the original mortgage or deed of trust may be so drawn in the first instance as to cover possible future renewals of the original note. Under no circumstances, however, must the bank obligate itself in advance to make such a renewal. It must in all cases preserve the right to require payment at the end of the year and to foreclose the mortgage should that action become necessary. The same principles apply to loans of longer maturities secured by farm lands.

(*h*) In order that real estate loans held by a bank may be readily classified, a statement signed by the officers making the loan and having knowledge of the facts upon which it is based must be attached to each note secured by a first mortgage on the land by which the loan is secured, certifying in detail as of the date of the loan that all of the requirements of law have been duly observed.

REGULATION H, SERIES OF 1917

(Superseding Regulation H of 1916)

Membership of State Banks and Trust Companies

I. *Statutory requirements*

Section 9 of the Federal Reserve Act, as amended by the act approved June 21, 1917, which authorizes State banks and trust companies to become members of the Federal Reserve System, is quoted in the appendix to this regulation.

II. *Banks eligible for membership*

A State bank or a trust company to be eligible for membership in a Federal Reserve Bank must comply with the following conditions:

(1) It must have been incorporated under a special or general law of the State or district in which it is located.

(2) It must have a minimum paid-up unimpaired capital stock as follows:

In cities or towns not exceeding 3,000 inhabitants, $25,000.

In cities or towns exceeding 3,000 but not exceeding 6,000 inhabitants, $50,000.

In cities or towns exceeding 6,000 but not exceeding 50,000 inhabitants, $100,000.

In cities exceeding 50,000 inhabitants, $200,000.

III. *Application for membership*

Any eligible State bank or trust company may make application on F. R. B. Form 83a, made a part of this regulation, to the Federal Reserve Board for an amount of capital stock in the Federal Reserve Bank of its district equal to 6 per cent of the paid-up capital stock and surplus of such State bank or trust company. This application must be forwarded direct to the Federal Reserve Agent of the district in which the applying bank or trust company is located and must be accompanied by Exhibits I, II, and III, referred to on page 1 of the application blank.

IV. *Approval of application*

In passing upon an application the Federal Reserve Board will consider especially—

(1) The financial condition of the applying bank or trust company and the general character of its management.

(2) Whether the corporate powers exercised by the applying bank or trust company are consistent with the purposes of the Federal Reserve Act.

(3) Whether the laws of the State or district in which the applying bank or trust company is located contain provisions likely to prevent proper compliance with the provisions of the Federal Reserve Act and the regulations of the Federal Reserve Board made in conformity therewith.

If, in the judgment of the Federal Reserve Board, an applying

bank or trust company conforms to all the requirements of the Federal Reserve Act and these regulations, and is otherwise qualified for membership, the Board will issue a certificate of approval subject to such conditions as it may deem necessary to insure compliance with the act and these regulations. When the conditions imposed by the Board have been accepted by the applying bank or trust company the Board will issue a certificate of approval, whereupon the applying bank or trust company shall make a payment to the Federal Reserve Bank of its district of one-half of the amount of its subscription, *i.e.*, 3 per cent of the amount of its paid-up capital and surplus, and upon receipt of this payment the appropriate certificate of stock will be issued by the Federal Reserve Bank. The remaining half of the subscription of the applying bank or trust company shall be subject to call when deemed necessary by the Federal Reserve Board.

V. *Powers and restrictions*

Every State bank or trust company while a member of the Federal Reserve System—

(1) Shall retain its full charter and statutory rights as a State bank or trust company, subject to the provisions of the Federal Reserve Act and to the regulations of the Federal Reserve Board, including any conditions embodied in the certificate of approval.

(2) Shall maintain such improvements and changes in its banking practice as may have been specifically required of it by the Federal Reserve Board as a condition of its admission and shall not lower the standard of banking then required of it; and

(3) Shall enjoy all the privileges and observe all those requirements of the Federal Reserve Act and of the regulations of the Federal Reserve Board made in conformity therewith which are applicable to State banks and trust companies which have become member banks.

VI. *Examinations and reports*

Every State bank or trust company, while a member of the Federal Reserve System, shall be subject to examinations made by direction of the Federal Reserve Board or of the Federal Reserve Bank by examiners, selected or approved by the Federal Reserve Board.

In order to avoid duplication, examinations of State banks and trust companies made by State authorities will be accepted in lieu of examinations by examiners selected or approved by

the Board wherever these are satisfactory to the directors of the Federal Reserve Bank and where, in addition, satisfactory arrangements for coöperation in the matter of examination between the designated examiners of the Board and those of the States already exist or can be effected with State authorities. Examiners from the staff of the Board or of the Federal Reserve Banks will, whenever desirable, be designated by the Board to act with the examination staff of the State in order that uniformity in the standard of examination may be assured.

Every State bank or trust company, while a member of the Federal Reserve System, shall be required to make in each year not less than three reports of condition and of the payment of dividends. Such reports shall be made to the Federal Reserve Bank of its district on call of such bank on dates to be fixed by the Federal Reserve Board.

Appendix to Regulation H

Section 9 of the Federal Reserve Act as amended by the act approved June 21, 1917, provides that:

Any bank incorporated by special law of any State, or organized under the general laws of any State, or of the United States, desiring to become a member of the Federal Reserve System, may make application to the Federal Reserve Board, under such rules and regulations as it may prescribe for the right to subscribe to the stock of the Federal reserve bank organized within the district in which the applying bank is located. Such application shall be for the same amount of stock that the applying bank would be required to subscribe to as a national bank. The Federal Reserve Board, subject to such conditions as it may prescribe, may permit the applying bank to become a stockholder of such Federal reserve bank.

In acting upon such applications the Federal Reserve Board shall consider the financial condition of the applying bank, the general character of its management, and whether or not the corporate powers exercised are consistent with the purposes of this act.

Whenever the Federal Reserve Board shall permit the applying bank to become a stockholder in the Federal reserve bank of the district its stock subscription shall be payable on call of the Federal Reserve Board and stock issued to it shall be held subject to the provisions of this act.

All banks admitted to membership under authority of this section shall be required to comply with the reserve and capital requirements of this act and to conform to those provisions of law imposed on national banks which prohibit such banks from lending on or purchasing their own stock, which relate to the withdrawal or impairment of their capital stock, and which relate to the payment of unearned dividends. Such banks and the officers, agents and employees thereof shall also be subject to the provisions of and to the penalties prescribed by section fifty-two hundred and nine of the

Revised Statutes, and shall be required to make reports of condition and of the payment of dividends to the Federal reserve bank of which they become a member. Not less than three of such reports shall be made annually on call of the Federal reserve bank on dates to be fixed by the Federal Reserve Board. Failure to make such reports within ten days after the date they are called for shall subject the offending bank to a penalty of $100 a day for each day that it fails to transmit such report; such penalty to be collected by the Federal reserve bank by suit or otherwise.

As a condition of membership such banks shall likewise be subject to examinations made by direction of the Federal Reserve Board or of the Federal reserve bank by examiners selected or approved by the Federal Reserve Board.

Whenever the directors of the Federal reserve bank shall approve the examinations made by the State authorities, such examinations and the reports thereof may be accepted in lieu of examinations made by examiners selected or approved by the Federal Reserve Board: *Provided, however,* That when it deems it necessary the board may order special examinations by examiners of its own selection and shall in all cases approve the form of report. The expenses of all examinations, other than those made by State authorities, shall be assessed against and paid by the banks examined.

If at any time it shall appear to the Federal Reserve Board that a member bank has failed to comply with the provisions of this section or the regulations of the Federal Reserve Board made pursuant thereto, it shall be within the power of the board after hearing to require such bank to surrender its stock in the Federal reserve bank and to forfeit all rights and privileges of membership. The Federal Reserve Board may restore membership upon due proof of compliance with the conditions imposed by this section.

Any State bank or trust company desiring to withdraw from membership in a Federal reserve bank may do so, after six months' written notice shall have been filed with the Federal Reserve Board, upon the surrender and cancellation of all of its holdings of capital stock in the Federal reserve bank: *Provided, however,* That no Federal reserve bank shall, except under express authority of the Federal Reserve Board, cancel within the same calendar year more than twenty-five per centum of its capital stock for the purpose of effecting voluntary withdrawals during that year. All such applications shall be dealt with in the order in which they are filed with the board.

Whenever a member bank shall surrender its stock holdings in a Federal Reserve Bank, or shall be ordered to do so by the Federal Reserve Board, under authority of law, all of its rights and privileges as a member bank shall thereupon cease and determine, and after due provision has been made for any indebtedness due or to become due to the Federal Reserve Bank it shall be entitled to a refund of its cash paid subscription with interest at the rate of one-half of one per centum per month from date of last dividend, if earned, the amount refunded in no event to exceed the book value of the stock at that time, and shall likewise be entitled to repayment of deposits and of any other balance due from the Federal Reserve Bank.

No applying bank shall be admitted to membership in a Federal Reserve Bank unless it possesses a paid-up unimpaired capital

sufficient to entitle it to become a national banking association in the place where it is situated under the provisions of the national bank act.

Banks becoming members of the Federal Reserve System under authority of this section shall be subject to the provisions of this section and to those of this act which relate specifically to member banks, but shall not be subject to examination under the provisions of the first two paragraphs of section fifty-two hundred and forty of the Revised Statutes as amended by section twenty-one of this act. Subject to the provisions of this act and to the regulations of the Board made pursuant thereto, any bank becoming a member of the Federal Reserve System shall retain its full charter and statutory rights as a State bank or trust company, and may continue to exercise all corporate powers granted it by the State in which it was created, and shall be entitled to all privileges of member banks: *Provided, however,* That no Federal Reserve Bank shall be permitted to discount for any State bank or trust company notes, drafts, or bills of exchange of any one borrower who is liable for borrowed money to such State bank or trust company in an amount greater than ten per centum of the capital and surplus of such State bank or trust company, but the discount of bills of exchange drawn against actually existing value and the discount of commercial or business paper actually owned by the person negotiating the same shall not be considered as borrowed money within the meaning of this section. The Federal Reserve Bank, as a condition of the discount of notes, drafts, and bills of exchange for such State bank or trust company, shall require a certificate or guaranty to the effect that the borrower is not liable to such bank in excess of the amount provided by this section, and will not be permitted to become liable in excess of this amount while such notes, drafts, or bills of exchange are under discount with the Federal Reserve Bank.

It shall be unlawful for any officer, clerk, or agent of any bank admitted to membership under authority of this section to certify any check drawn upon such bank unless the person or company drawing the check has on deposit therewith at the time such check is certified an amount of money equal to the amount specified in such check. Any check so certified by duly authorized officers shall be a good and valid obligation against such bank, but the act of any such officer, clerk, or agent in violation of this section may subject such bank to a forfeiture of its membership in the Federal Reserve System upon hearing by the Federal Reserve Board.

REGULATION I, SERIES OF 1917

(Superseding Regulation I of 1916)

Increase or Decrease of Capital Stock of Federal Reserve Banks

Increase of capital stock

Whenever the capital stock of any Federal Reserve Bank shall be increased by new banks becoming members, or by the increase

of capital or surplus of any member bank and the allotment of additional capital stock to such bank, the board of directors of such Federal Reserve Bank shall certify such increase to the Comptroller of the Currency on Form 58, which is made a part of this regulation.

Decrease of capital stock

I. Whenever a member bank reduces its capital stock or surplus, and, in the case of reduction of its capital, such reduction has been approved by the Comptroller of the Currency and by the Federal Reserve Board in accordance with the provisions of section 28 of the Federal Reserve Act, it shall file with the Federal Reserve Bank of which it is a member an application on Form 60, which is made a part of this regulation. When this application has been approved, the Federal Reserve Bank shall take up and cancel the receipt issued to such bank for cash payments made on its subscription and shall issue in lieu thereof a new receipt after refunding to the member bank the proportionate amount due such bank on account of the subscription canceled. The receipt so issued shall show the date of original issue, so that dividends may be calculated thereon.

II. Whenever a member bank shall be declared insolvent and a receiver appointed by the proper authorities such receiver shall file with the Federal Reserve Bank of which the insolvent bank is a member an application on Form 87, which is made a part of this regulation, for the surrender and cancellation of the stock held by, and for the refund of all balances due to such insolvent member bank. Upon approval of this application by the Federal Reserve Agent the Federal Reserve Bank shall accept and cancel the stock surrendered, and shall adjust accounts between the member bank and the Federal Reserve Bank by applying to the indebtedness of the insolvent member bank to such Federal Reserve Bank all cash-paid subscriptions made by it on the stock canceled with one-half of 1 per centum per month from the period of last dividend, if earned, not to exceed the book value thereof, and the balance, if any, shall be paid to the duly authorized receiver of such insolvent member bank.

III. Whenever a member bank goes into voluntary liquidation and a liquidating agent is appointed, such agent shall file with the Federal Reserve Bank of which it is a member an application on Form 86, which is made a part of this regulation, for the surrender and cancellation of the stock held by and for the refund of all balances due to such liquidating member bank. Upon

approval of this application by the Federal Reserve Agent the Federal Reserve Bank shall accept and cancel the stock surrendered, and shall adjust accounts between the liquidating member bank and the Federal Reserve Bank by applying to the indebtedness of the liquidating member bank to such Federal Reserve Bank all cash-paid subscriptions made by it on the stock canceled with one-half of 1 per centum per month from the period of last dividend, if earned, not to exceed the book value thereof, and the balance, if any, shall be paid to the duly authorized liquidating agent of such liquidating member bank.

IV. Whenever the stock of a Federal Reserve Bank shall be reduced in the manner provided in Paragraphs I, II, or III of this regulation the board of directors of such Federal Reserve Bank shall, in accordance with the provisions of section 6, file with the Comptroller of the Currency a certificate of such reduction on Form 59, which is made a part of this regulation.

REGULATION J, SERIES OF 1917

(Superseding Regulation J of 1916)

Check Clearing and Collection

Section 16 of the Federal Reserve Act authorizes the Federal Reserve Board to require each Federal Reserve Bank to exercise the function of a clearing house for its member banks, and section 13 of the Federal Reserve Act as amended by the act approved June 21, 1917, authorizes each Federal Reserve Bank to receive from any non-member bank or trust company, solely for the purposes of exchange or of collection, deposits of current funds in lawful money, national bank notes, Federal Reserve notes, checks, and drafts payable upon presentation, or maturing notes and bills, provided such non-member bank or trust company maintains with its Federal Reserve Bank a balance sufficient to offset the items in transit held for its account by the Federal Reserve Bank.

In pursuance of the authority vested in it under these provisions of law, the Federal Reserve Board, desiring to afford both to the public and to the various banks of the country a direct, expeditious, and economical system of check collection and settlement of balances, has arranged to have each Federal Reserve Bank exercise the functions of a clearing house for such of its member banks as desire to avail themselves of its privileges and for such State banks and trust companies as may maintain with

the Federal Reserve Bank a balance sufficient to qualify it as a clearing member under the provisions of section 13.

Each Federal Reserve Bank shall exercise the functions of a clearing house under the following general terms and conditions:

(1) Each Federal Reserve Bank will receive at par from its member banks, and from non-member banks in its district which have become clearing members, checks[1] drawn on all member and clearing member banks and on all other non-member banks which agree to remit at par through the Federal Reserve Bank of their district.

(2) Each Federal Reserve Bank will receive at par from other Federal Reserve Banks and will receive at par from all member and clearing member banks, regardless of their location, for the credit of their accounts with their respective Federal Reserve Banks, checks drawn upon all member and clearing member banks of its district and upon all other non-member banks of its district whose checks can be collected at par by the Federal Reserve Bank. The Federal Reserve Banks will prepare a par list of all non-member banks, to be revised from time to time, which will be furnished to member and clearing member banks.

(3) Immediate credit entry upon receipt subject to final payment will be made for all such items upon the books of the Federal Reserve Bank at full face value, but the proceeds will not be counted as part of the minimum reserve nor become available to meet checks drawn until actually collected, in accordance with the best practice now prevailing.

(4) Checks received by a Federal Reserve Bank on its member or clearing member banks will be forwarded direct to such banks and will not be charged to their accounts until sufficient time has elapsed within which to receive advice of payment.

(5) In the selection of collecting agents for handling checks on non-member banks, which have not become clearing members, member banks will be given the preference.

(6) Under this plan each Federal Reserve Bank will receive at par from its member and clearing member banks checks on all member and clearing member banks and on all other non-member banks whose checks can be collected at par by any Federal Reserve Bank. Member and clearing member banks will

[1] A check is generally defined as a draft or order upon a bank or banking house, purporting to be drawn upon a deposit of funds, for the payment at all events of a certain sum of money to a certain person therein named, or to him or his order, or to bearer, and payable instantly on demand.

be required by the Federal Reserve Board to provide funds to cover at par all checks received from or for the account of their Federal Reserve Banks: *Provided, however,* That a member or clearing member bank may ship currency or specie from its own vaults at the expense of its Federal Reserve Bank to cover any deficiency which may arise because of and only in the case of inability to provide items to offset checks received from or for the account of its Federal Reserve Bank.[1]

(7) Section 19 of the Federal Reserve Act provides that—

The required balance carried by a member bank with a Federal Reserve Bank may, under the regulations, and subject to such penalties as may be prescribed by the Federal Reserve Board, be checked against and withdrawn by such member bank for the purpose of meeting existing liabilities: *Provided, however,* That no bank shall at any time make new loans or shall pay any dividends unless and until the total balance required by law is fully restored.

It is manifest that items in process of collection cannot lawfully be counted as part of the minimum reserve balance to be carried by a member bank with its Federal Reserve Bank. Therefore, should a member bank draw against such items the draft would be charged against its reserve balance if such balance were sufficient in amount to pay it; but any resulting impairment of reserve balances would be subject to all the penalties provided by the act.

Inasmuch as it is essential that the law in respect to the maintenance by member banks of the required minimum reserve balance shall be strictly complied with the Federal Reserve Board, under authority vested in it by section 19 of the act, hereby prescribes as the penalty for any deficiency in reserves a sum equivalent to an interest charge on the amount of the deficiency of 2 per cent per annum above the 90-day discount rate of the Federal Reserve Bank of the district in which the member bank is located. The Board reserves the right to increase this penalty whenever conditions require it.

For the purpose of keeping their reserve balances intact member banks may at all times have recourse to the rediscount facilities offered by their respective Federal Reserve Banks.

(8) Each Federal Reserve Bank will determine by analysis

[1] In accordance with instructions issued by the Federal Reserve Board on April 24, 1917, the various Federal Reserve Banks have issued circulars setting forth the conditions under which their respective member banks may draw drafts on their reserve bank accounts payable with or through any other Federal Reserve Bank.

the amounts of uncollected funds appearing on its books to the credit of each member bank. Such analysis will show the true status of the reserve held by the Federal Reserve Bank for each member bank and will enable it to apply the penalty for impairment of reserve.

A schedule of the time required within which to collect checks will be furnished to each bank to enable it to determine the time at which any item sent to its Federal Reserve Bank will be counted as reserve and become available to meet any checks drawn.

(9) In handling items for member and clearing member banks, a Federal Reserve Bank will act as agent only. The Board will require that each member and clearing member bank authorize its Federal Reserve Bank to send checks for collection to banks on which checks are drawn and, except for negligence, such Federal Reserve Bank will assume no liability. Any further requirements that the Board may deem necessary will be set forth by the Federal Reserve Banks in their letters of instruction to their member and clearing member banks. Each Federal Reserve Bank will also promulgate rules and regulations governing the details of its operations as a clearing house, such rules and regulations to be binding upon all member and non-member banks which are clearing through the Federal Reserve Bank.

(10) The cost of collecting and clearing checks must necessarily be borne by the banks receiving the benefit and in proportion to the service rendered. An accurate account will be kept by each reserve bank of the cost of performing this service and the Federal Reserve Board will, by rule, fix the charge, at so much per item, which may be imposed for the service of clearing or collection rendered by the reserve banks, as provided in section 16 of the Federal Reserve Act.

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